

A  
DIALOGUE  
BETWEEN A  
LADY AND HER PUPILS,  
DESCRIBING  
*A journey through England and Wales;*

IN WHICH  
A DETAIL OF THE DIFFERENT ARTS AND MANUFACTURES OF EACH CITY AND TOWN IS  
ACCURATELY GIVEN;

INTERSPERSED WITH  
OBSERVATIONS AND DESCRIPTIONS IN  
NATURAL HISTORY.

*Designed for Young Ladies and Schools.*

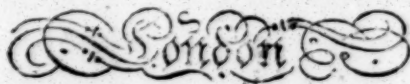
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BY MRS. BROOK.

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# PREFACE

The first of the two volumes of the  
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## PREFACE.

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THE AUTHOR of this work thinks it necessary to alledge her reasons for offering it to the Public. She is sensible of its imperfections, but hopes that her intention will ensure its success. She has often remarked, that in most books of travels, where any mention is

made of manufactures, it is in a manner so flight, as hardly to leave a permanent impression on the reader's mind; and that most young ladies, though well instructed in other respects, can seldom recollect the different towns, except those of the first rate, where any useful branch of trade is carried on; and very few have been taught in what manner most things which they see in daily use are made. As the Author hath for some years past made the education of young ladies her study, she perceived a book of this kind was much wanted,

wanted, and thought, that by arranging it in the form of a *tour* it was the most likely to make a lasting impression on the memory of youth, and also give them a geographical knowledge of the places noted for any branch of manufacture.

Some accounts are also interspersed here and there of animals, and of the birds particular to each county. As those are, likewise, articles of emolument to the inhabitants of the places that are noted for them, they are pointed out to inform the young reader of  
the

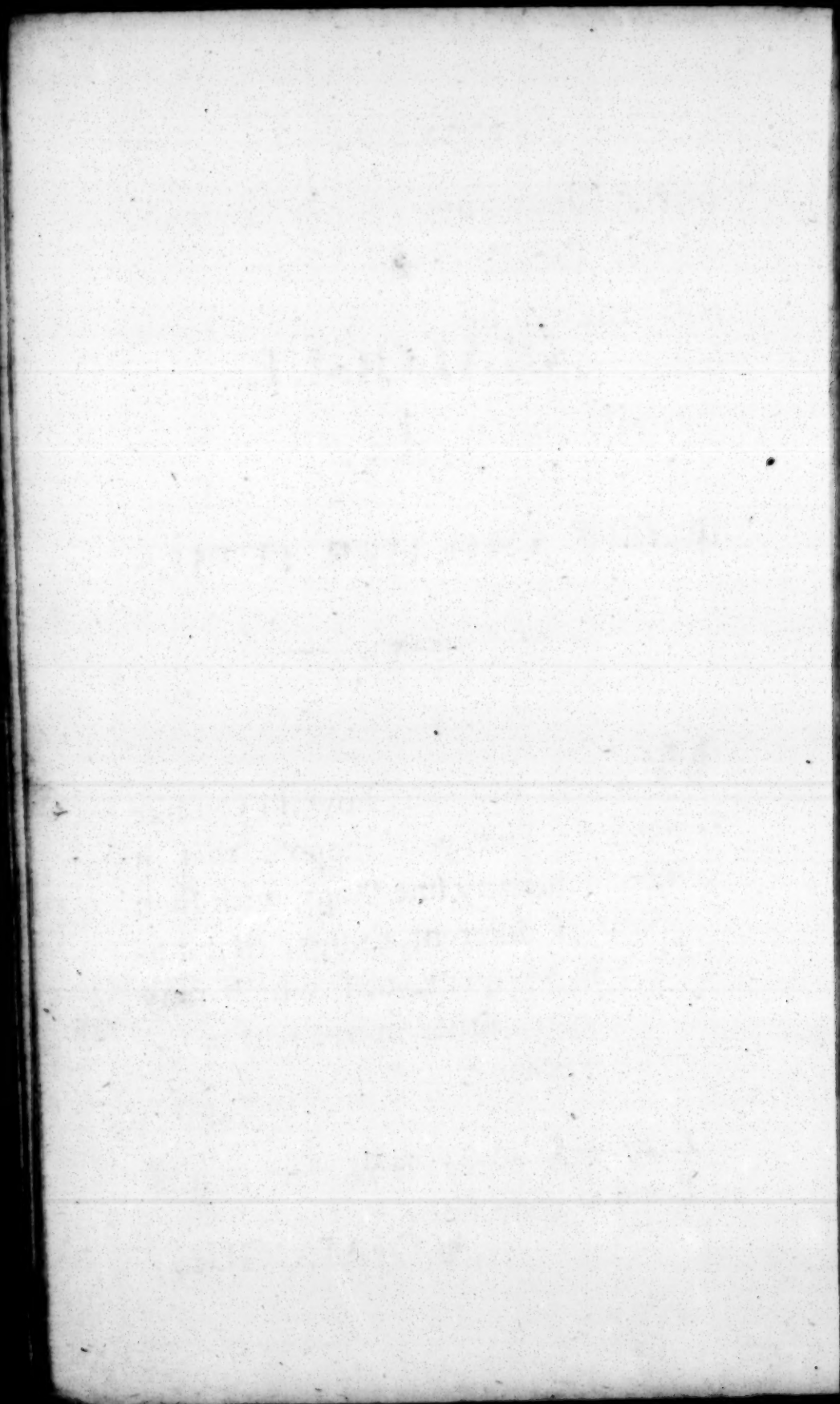


the different sources, from which the industrious draw their support; and, at the same time, it serves to make a diversity in the work, which relieves the attention from dwelling too long on the same subject.

The reader, and those who have the education of youth, will judge, whether the Author's performance has fulfilled her intention. She is aware, that justice may urge the critic to pass a severe sentence on it; but, as vanity bore no share in her undertaking, she will think  
her

her endeavours amply rewarded, if she can add her mite to the many books which have been written of late years, to contribute to the instruction and cultivation of the infant mind.

A DIALOGUE



A  
DIALOGUE

BETWEEN A  
LADY AND HER PUPILS.

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*Aunt.*

WELL, my dear, how do you like London? Did you suppose that it contained so many fine shops, with such a variety of different things, that nothing can be mentioned which may not be bought, either in one part of the town or another?

*Louisa*—Is every thing that is sold in London made there?

B

*Aunt*



*Aunt*—No, my dear. Though there are a great many manufactures in London, yet most country towns have some peculiar to them, that supply the shops of the metropolis; and which they send abroad to different countries, and receive, in return for them, whatever England does not produce; by that means, every thing that is valuable or curious in foreign countries is had in exchange for our own manufactures.

*Maria*—Will you give us an account of the places that are noted for any different branch of manufacture, and also the manner of working them? As we know the map of England, we can point out every town on it while you mention to us the different trades in which the inhabitants are employed. It will be a great pleasure to me to go over my maps again, as you know that geography is my favourite study.

*Aunt*

*Aunt*—I shall have no less satisfaction in giving you all the information in my power, as nothing gives me so much pleasure as to see you desirous of knowledge : I wish you to be acquainted with the productions of your own country, that you may be truly sensible of the advantages that are enjoyed in it, and not think, from want of knowing them, that other countries are preferable to it.

## MIDDLESEX.

WE will then set out on our maps from Hyde-park, near London. Beyond it is Kensington ; you have taken great pleasure in the gardens, and know that it is a royal palace. Hammer-smith and Turnham-Green are pleasant villages on the road to Brentford, the first market-town on this road, ten miles from London, on the

river Brent: here the members of parliament for Middlesex are elected; the town carries on a considerable trade in corn, both by land and water carriage. Staines is on the western borders of the county, 19 miles from London, on the river Thames; its situation being pleasant, it is well inhabited. The next town on the west side of the county is Uxbridge, 18 miles from London; it is noted for good bread, especially the rolls are reckoned better than those baked elsewhere. The other towns are Edgeware and Barnet. The chief trade of Middlesex, exclusive of London, consists in corn, which is excellent, the land being made very fruitful by the compost of the metropolis.

I shall not mention to you the many pleasant villages that are in this county, as it would be foreign to our design, which

which is only to take notice of such places as are noted for any particular manufacture.

The chief rivers of the county are the Thames, the Brent, the Coln, the Lea, and the New River.

## HERTFORDSHIRE

WE enter at Barnet, 11 miles from London. This county may be stiled the granary of England, as it produces all sorts of grain in abundance.

The first town on the north-east of the county is Hodsdon, 18 miles from London, on the river Lea; the New River also passes through this town: it is a place of great thoroughfare, and carries on a considerable trade in corn and other grain. The next town is Stortford, on the river Stort, 30 miles



from London. On the west is Standen, a very small, obscure town. To the south is Ware, on the river Lea, 22 miles from London. The source of the New River is near this town. Great quantities of corn, malt, and other grain, are sent to the metropolis by the Lea.

*Louisa*—I often hear mention made of malt, and know that it is used in brewing, but wish to be informed in what manner it is made.

*Aunt*—Malt is made from barley, newly threshed. A quantity is put into a stone trough, full of water; it steeps about three days, till the water is of a bright reddish colour; it is then taken out of the trough, and laid in heaps to let the water drain from it; in two or three hours it is turned over and laid in a new heap for about forty hours :  
after

after laying fifteen or sixteen hours the grains put forth roots ; the malt is turned over again every four or five hours. These frequent turnings cool, dry, and deaden the grain, which becomes mellow, so as to melt easily in brewing, and separate entirely from the husk. It is then laid on a kiln, with a hair cloth or wire spread under it : a brisk fire is made to dry it, and then another not so hot, and sometimes a third ; for if the malt is not thoroughly dry it cannot be well ground, neither will it dissolve well in the brewing.

We shall now proceed on our journey to Hertford, the county town, on the river Lea, 23 miles from London. A great trade is carried on here in corn, malt, and wool. I need not tell you that wool is the fleece of sheep, and one of the staple commodities of England.

South-west of Hertford is Hatfield, 20 miles from London, on a barren heath; and going west, we come to St. Albans, a great thoroughfare to the western counties, 21 miles from the metropolis, whose chief trade is in grain of every sort. To the south are Watford and Rickmansworth; the first 17 and the latter 18 miles from London, on the river Coln. Hempstead has a great trade in wheat, and is 26 miles north-west of the metropolis. Berkhamstead and Tring are at the most western point of the county; the first 30, and the last 33 miles from London. At Hitching considerable quantities of malt are made. The distance from the capital is 35 miles. Baldock is a large town, chiefly inhabited by malsters, 38 miles from London. Stevenage is 32 miles, Buntingford is at the same distance, and Barkway is 35 miles from the metropolis.

The

The rivers of this county are the Lea, the Stort, the Coln, the Ver, and the New River. I mention the rivers, being of great service to trade, as the conveyance of merchandise of every kind by water is much cheaper than by land.

## CAMBRIDGESHIRE.

WE shall now enter Cambridgeshire, by Royston, 38 miles from London. There is a bird peculiar to this county very common here, and on that account called the Royston crow.

Cambridge, on the river Cam, is 50 miles north-east of London, and is justly famed for its celebrated University, containing 16 colleges; the names of which are, 1st Peter-House, 2nd Clare-Hall, 3rd Pembroke-Hall, 4th St. Bennet, or Corpus-Christi College;



5th Trinity-Hall, 6th Gonevil and Caius College, 7th King's College, 8th Queen's College, 9th Catherine-Hall, 10th Jesus College, 11th Christ's College, 12th St. John's College, 13th Magdalen College, 14th Trinity College, 15th Emanuel College, and 16th Sidney Suffex College. Near Cambridge is a village called Sturbridge, remarkable for having near it the greatest fair in all the king's dominions, which lasts a fortnight.

To the south of Cambridge is Linton, 49 miles from London: great quantities of saffron grow about it, so that the market which used formerly to be at Walden, in Essex, is now held here. The fairs are also noted for horses.

Newmarket is 61 miles from London, and 15 from Cambridge; it is a  
very

very noted place on account of the races, which are held twice a year on the heath in its neighbourhood, at Easter, and in the month of October. To the north of Newmarket is Soham, 68 miles from London ; and from thence we enter the Isle of Ely, a very fenny, damp, unhealthy country. The town of Ely is 96 miles from London, and is a bishop's see. In the fens are a great many decoy-ponds ; one of which, near Ely, is said to send up to London every week three thousand couple of wild ducks, an article of great trade to those people who have the decoys, and a great profit to the owners of the land on which they are.

*Louisa*—Pray, Madam, be so good as to give us some account of those ducks, and of the manner in which they are caught ?

*Aunt*—The bill of this duck is straight and flat, covered with a skin, and swelled at the base; the feet are webbed and fitted for swimming, and the intermediate tail-feathers are turned backwards. These ducks frequent the lakes of different countries, and feed upon several sorts of insects: they pair in the spring; build their nests among rushes, near the water, and lay from ten to sixteen eggs. The female is very artful, and does not always make her nest close to the water; in that case she will carry her young in her beak, or between her legs, to it. In moulting time, when they cannot fly, they are caught in great quantities, and decoyed into the ponds by others, trained up for that purpose, which are so tame as, at stated times, to take their food out of the decoyman's hand. As those ducks are not confined, they fly to sea, and return with a great number

number of wild ones to the pond whereto they belong, when the decoymen, perceiving them, go as secretly as possible under the covering of an hedge to the pond, and throw handfuls of corn into places that the decoy ducks are acquainted with; their eating prompts the others to do the same. This is repeated several times, till they are by degrees led into the narrow part of the pond, where trees on each side hang over like an harbour, and prevent their seeing a large net, spread near the top of the trees: corn is still continued to be thrown into the water, and the tame ducks continue to feed, till, by following them, the wild ones are brought within the sweep of the net, which, as they advance, grows narrower and lower, ending like a purse; then a dog, trained up for that purpose, swims into the water, barking at the ducks, which, being frightened, attempt



tempt to rise, but are beaten down by the net, and obliged to swim forwards to avoid the dog, till they are hurried into the purse, where the decoy-men are ready to receive them, and who easily distinguish the tame ducks, which they take care to cherish and feed, and afterwards send them to sea to bring more company. The general season for catching those ducks is from the the latter end of October till February, taking them earlier being prohibited under a penalty.

The towns in the fens are Merst, 79; Thorney, 84; and Wisbich, 89 miles from London. Wisbich is esteemed the best trading town in all the Isle of Ely; its conveniency of water carriage to London being a great advantage to the inhabitants, who send great quantities of oil and butter, and bring back in return all the commodities

ties that are wanted ; with which they supply the whole island.

*Maria*—Why do they carry butter and oil to London in preference to any other article ? I always thought that oil came from abroad, pray tell me how they get it ?

*Aunt*—Butter is a great article of trade here, which is salted, and sold in London by the name of Cambridge butter, and fetches a higher price than what is brought from elsewhere. As for their oil, it is made of cole-feed, which grows more abundantly here than in any other part of England, the fens being the most proper soil for it. It is a sort of cabbage-plant ; the root is long, the leaves narrow, the flower yellow, and turns to seed ; out of it an oil is made, called rape oil, which is used in the woolen manufactories, and  
valued

valued too for other uses. Cole-feed is also an excellent winter food for cattle; and their feeding on it I should suppose to be one reason why the butter of this place is so much esteemed: as you know that it is made from milk, the goodness of it must depend greatly upon what the cows feed on. The land is often sown with cole-feed, as a good preparative for barley or wheat, greatly esteemed here for their excellence, especially barley, of which they make great quantities of malt. They have also a great trade in cattle, saffron, hemp, and fish.

The manufactures of this county are basket and paper making. Baskets are made out of rush, osier, and willow trees, which grow in great plenty in the fens; and those, when dried, are wrought into whatever shape is wanted. Before we proceed, I would have you reflect a moment on the advantages

tages derived from this part of the country ; though it lies almost covered with water, how many articles of real necessity it produces, that richly compensate for every inconvenience the inhabitants may labour under from the moisture of the soil ; it will convince you of what I have so often endeavoured to inculcate into your minds, that there is no place but what possesses advantages, which, in some degree, compensate for the natural inconveniences of it ; and from which, minds truly pious will find reason to raise their thoughts and hearts in thanksgiving to the great Author of all things, who has distributed his gifts impartially to all, however otherwise it may appear to the unthinking part of mankind.

*Louisa*—You have forgot to tell us how paper is made : I have read that  
it



it is made from linen rags, but not the manner in which it is done ; and I am entirely at a loss to guess, or form any idea about it.

*Aunt*—The rags are put into parcels according to their fineness, the coarse ones being for common paper ; when they are made as white as possible, they are carried to the mill, where they are pounded in water till they are reduced to a thin pulp ; then they are poured into a working tub, and a frame is used made of wire, the size the sheet of paper is to be of ; other wires, laid at an equal distance from one another, make the lines that are seen on the paper ; and some wires are made in the shape of figures, that are perceived in the middle of the paper when held up to the light. This frame the workman holds in both hands, which he dips into the tub, or vat, and takes it out again

again instantaneously : the water runs through the spaces between the wires, and the beaten pulp remains on the frame, and forms the sheet of paper ; a flannel cloth, called a felt, is then laid over it, and the paper is turned upon it, which absorbs the moisture : the paper is then hung up to dry in places fitted for the purpose, and when sufficiently dry, it is rubbed smooth with the hands. The various dimensions of paper are distinguished by the names of Atlas, Elephant, Imperial, Super-royal, Royal, Medium, Demy, Crown, Post, Foolscap, and Pot. There has been lately some paper made without the wire frame, and instead of it a sieve has been used to answer the same purpose.

The rivers of this county are the Ouse, the Cam, the Welland, the Glene, the Witham, and the Granta.

NORFOLK.

## NORFOLK.

THIS county is parted from Cambridgeshire by the river Ouse; and proceeding from Downham, 89 miles from London, to Mershland, Seeching, and from thence to Lynn Regis, a town of great trade, 98 miles from the metropolis; its situation is at the mouth of the Ouse, where it falls into the German ocean, after receiving several lesser rivers: this is what makes the trade of this town so extensive, as it supplies several inland counties with coals and wine; the latter is imported from Portugal and other places. They receive corn in return, which is exported to a considerable amount to Holland, Norway, the Baltic, Spain, and Portugal.

Castle

Castle Rising is 97 miles from London; Snettisham is two miles beyond it; Burnham is 116 miles, and Walsingham, 122 miles from the metropolis: the soil round it produces good saffron. Fakenham, Clay, and Holt, are small, obscure towns. Cromer is 127 miles from London: the inhabitants chiefly employ themselves in catching lobsters, which are here in such plenty as to be sometimes carried to London. Wursted is 117 miles from London: the invention of twisted woollen yarn is due to this town, and from thence was called worsted. Great quantities of stockings, both knit and woven, are made at this place: here is, also, a manufacture of common worsted stuffs. To the west is Causton, 113, and Alesham, 119 miles from London; the inhabitants are chiefly knitters of stockings. At Repeham the chief trade is in malt.

Norwich



Norwich is a bishop's see, 109 miles from London ; it has been long famous for its woollen manufactories, crape, camblet, baize, fays, druggets, ferges, and shalloons, are all woven here in great perfection. It is said, there are no less than a hundred and twenty thousand people employed in these manufactures ; and that the whole country round about are constantly spinning for them. Here is, also, a manufacture of stockings, whose trade, in that branch alone, amounts to sixty thousand pounds a year.

*Maria*—Before you proceed, explain to us the different use of those articles, and the manner in which each is made.

*Aunt*—Baize is a woollen stuff, wrought in a large loom, with two treadles ; it has a long nap, which is a kind of down, sometimes frizzled, and sometimes

sometimes not. They are exported in great quantities to Spain, Portugal, and Italy, where their chief use is for dressing the monks and nuns—in England, they are used in the army, for lining of tents; in houses, to cover carpets and furniture, to preserve them; the looking-glass makers use them behind their glasses, to prevent the tin or quicksilver from being damaged; and the case makers, to line their cases. The breadth of those baizes is commonly a yard and a half, a yard and three quarters, and two yards. Crape is a light, transparent stuff, made partly of worsted, and partly of raw silk, gummed and twisted on the mill: it is used in mourning, and is either crisped or smooth; the silk used for the first is more twisted than for the second, it being the greater or less degree of twist that produces the crisping. When taken out of the loom, it is steeped in clear water,

water, and rubbed with a piece of wax. Crapes are all dyed raw. The invention of this stuff came originally from Bologna, in Italy. Camblet is a plain stuff, made in a loom with two treadles. There are several sorts of camblets; some of goats hair, both in the warp and woof; others, in which the warp is of hair, and the woof half hair and half silk; in some the warp is of wool and the woof of thread; and some are entirely of wool; others are dyed in the thread, others in the piece; some are mixed, some striped, others waved or watered, and some figured; all of which serve for different uses, according to their different qualities; some being for cloathing, and others for household furniture. Druggets are sometimes made all of wool, and sometimes half of wool and half of thread; they are then called threaded druggets. Those that are plain are wrought on a  
loom

loom with the shuttle, like camblets ; some are corded, and worked with the shuttle on a different loom, and are called corded druggets. Saye is a woollen stuff, used by the religious abroad for shirts and linings ; in England it is used by artificers, for aprons, and is then dyed green.

Serge is a woollen stuff, wrought in the loom, for which the longest wool is chosen for the warp, and the shortest for the woof ; when it is spun, the thread is reeled into skains ; that of the woof is put on quills, called spools, to be put in the holes of the shuttle ; and that for the warp is wound on wooden bobbins : when on the loom it is raised by four treadles, placed under it, which the workmen move with their feet, one after another, and raise the threads of the warp, and then throw in the shuttle, which,

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when



when taken out of the loom, is sent to be scoured, and the knots, ends, and whatever may be sticking on it, are taken off with pincers. The serge is then cleaned again, and put on tenters to dry, and be stretched to its proper breadth: it is then dyed, shorn, and pressed. It is a very thin stuff, and serves for lining and great coats.

Shalloon is what is used to line gentlemen's cloaths; it is wrought in the loom, and is a very flight stuff. I think I have now satisfied you, as to the manufactures of this town, and you may judge, from the number of hands employed in it, what riches these different branches must bring to the inhabitants, and how commendable their industry is. Though the town is large, it is said, that on a week-day it appears deserted, as all the people are employed at their looms; and there is scarce a child,

child, but what may get its bread, at the age of five or six years, and thereby become an useful member of society.

We shall now continue our journey, and the next town we stop at is Yarmouth, 122 miles north-east of London; it has the largest and most handsome quay in England, and is inferior to none in Europe; the market is the finest and best furnished of any in the kingdom. This town has the greatest trade of any place on all the eastern coast, except Hull, in Yorkshire; it has the entire trade of red herrings, or the herring fishery, forty thousand barrels of which are cured here in a year, and every barrel contains a thousand herrings. A great number of ships are employed in exporting those to Italy, Spain, and Portugal, which carry, also, to these places great quantities of all the Norwich stuffs; and their

trade with Holland, for their woollen manufactures, is very great. In the spring they have almost as great a trade for the mackerel fishery, as in the autumn for herrings. The town is situated on the river Yare and the German ocean.

The next town, on the edge of the county, is Harleston, 94 miles from London. Loddon lies to the north of Harleston. East Hireling, and New Buckenham, are the most southern towns of the county, but have nothing worthy of note. Attleborough, Kingham, Windham, and Dereham, are at small distances from each other, the first being 93, and the last 100 miles from London: they contain nothing worthy of notice. At Windham the inhabitants are employed in making spindles, spigots, faucets, spoons, trenchers, and other mean wooden ware. Walton is  
90 miles

90 miles from London, and sends there great quantities of butter. Thetford is situated on the little Ouse, which separates this county from Suffolk, the town on the south side of the river being in that county, and is 80 miles from London. A considerable trade is carried on here in corn, coal, iron, deal, paper, and reed. The air of this place is very healthful, and the situation pleasant. Swaffham is 94 miles from London; in its neighbourhood are frequent horse-races, and the town is noted for making spurs. Methwold is 97 miles from London, and is remarkable for breeding excellent rabbits, of which they sell great quantities, generally called Mevil rabbits.—The principal rivers are the great and little Ouse, the Yare, and the Waverly. Jet and Ambergris are sometimes found on the coast. Great quantities of sheep are fed in this county, some of which are



of a peculiar kind, called the Norfolks. The clay grounds are very fruitful in rye, pease, wheat, and barley; and in some parts produce saffron. Honey is also very plentiful in this county.

### SUFFOLK.

CROSSING the little Ouse, we enter the county of Suffolk at Brandon, 79 miles from London, and from thence proceed eastward to Buddefdale and Eye, the first, 87, and the other, 97 miles from London. Framlingham is four miles from Eye. On the north-east is Halesworth, distant from the metropolis, 97 miles. There are great quantities of linen yarn spun in this town and its neighbourhood. Bungay, Beccles, and Lestoffe, are the most northern towns of the county; the first, 107, the next, 108, and the last, 112 miles from London: the chief employment

employment of the inhabitants is fishing. On the east coast is Southwold ; it has a good trade in pickling herrings and sprats for exportation ; they are, also, employed in making nets for fishing, and in refining salt. They have some trade in corn, malt, wool, timber, and lime. The distance from London is 104 miles.

*Maria*—Before we proceed, explain to us the the manner in which herrings are caught and preserved.

*Aunt*—They are caught with nets, made with large wooden needles, the meshes of which are an inch square, that the small fish may slip through ; the nets are tanned to make them strong, and also of a proper colour ; every vessel is obliged to carry a quantity of salt in new barrels, and as many new barrels to hold the fish as they

can ; also, a quantity of nets : when I say every vessel, I mean those entitled to the bounty granted by parliament for the encouragement of the fishery. The manner of pickling herrings is this ; when they have hauled in their nets, they are thrown on the deck, and the crew are separated into divisions, each having a peculiar task : one part open and gut the fish, leaving the melts and roes ; others cure and salt them, by lining or rubbing their insides with salt. The English generally wash them in fresh water, and let them lay in a strong brine before they barrel them ; when they are barreling them, they sprinkle each row and division with handfuls of salt ; then the cooper puts the head on the cask very tight, and they are stowed in the hold. Red herrings lie twenty-four hours in the brine, and then are spitted by the head, on little wooden spits, and hung  
in

in a chimney made for that purpose ; after which some brush wood is lighted under them that yields no fire, but a deal of smoke ; and thus they remain till sufficiently dried and smoked, when they are barrelled up for sale.

We shall now continue our tour. The towns on the coast are Dunwich, Saxmundham, and Aldborough : the first is 99, the next, 89, and the last, 94 miles from London. At Aldborough they have a good trade in fish, especially soles, and lobsters : they also cure great quantities of sprats, in the same manner as red herrings are done. Orford is 88, and Woodbridge 77 miles from London. A good trade is carried on at this town in butter, cheese, and planks ; but its greatest trade consists in refining of salt. To the north is Wickham, 81, and Debenham, 83 miles from London. Ipswich is 69

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miles



miles from the metropolis. There are above an hundred and fifty ships belonging to this port; many of them employed in the Greenland fishery. Here are three dock-yards, constantly employed in building ships, with every convenience necessary for all sorts of stores; they have also every advantage on the river for boiling their blubber, to make oil, which you know is made from the fat of whales, killed in the north seas. Here is also a good trade carried on in corn, malt, and other grain. This town, on account of the cheapness of all sorts of provisions, is inhabited by a great number of genteel people, of small fortunes; and therefore considered as an agreeable place of entertainment.

Hadley, Bileston, Needham, Stow, Mendlesham, and Ixworth, are small, obscure towns, containing nothing  
worthy

worthy of note, lying almost in a line from south to north, the first being 64, and the last-mentioned, 77 miles from London. Wulpit, 64 miles from London, is noted for making white bricks, which are in general made of reddish earth, found white here: the manner of making them is this; they make choice of the fattest clay, and make it into a kind of dough, which, by means of a wooden mould, they form into a square shape, of about eight or nine inches long, and four inches thick: they are then baked or burnt, either in a kiln or clamp; in the former they are sufficiently done in forty-eight hours; in clamp they are laid one row above another, with a vacancy, the breadth of a brick, between each, for the fire to play thro'; then they strew sea-coal over the clamp, and wood betwixt all the rows, which, being kindled, communicates

the fire to the coals, and when all is consumed the bricks are sufficiently burnt.

Bury St. Edmunds, 72 miles from London, is reckoned a remarkable healthy place, full of genteel families : spinning is the only manufacture of the town. Mildenhall is north-west of it, 70 miles, and Clare 56, from London : it has a manufacture of says. Lavenham has considerable manufactures of serge, says, shalloons, stuffs, and fine yarn. Here is also a wool-hall. The distance from the capital is 60 miles. Sudbury is a good manufacturing town, where a great many people work the wool from the sheep's back, to the weaving it into says, and burying crape, for shrouds, which is their most considerable article of trade : they also weave ship flags. The distance from London is 54 miles. Neyland has  
some

some trade in baize and fays, that are made there: the distance from London is 57 miles.

The principal rivers of this county are the Stour, the lesser Ouse, the Wavery, the Deben, the Orwell, the Ald, and the Blith. This county is noted for breeding turkeys, of a larger size than those of any other part, with which it supplies London, and all the country round about.

## ESSEX.

CROSSING the Stour, at Neyland, we enter Essex; and, proceeding south-west, the first town we come to is Halstead, 47 miles from London. Here is some trade in baize. The next town is Walden, commonly called Saffron Walden, as the best saffron in England grows in the neighbouring fields.

*Maria*



*Maria*—I know that saffron is a drug much used in medicine, but am ignorant of it, as to its nature, nor did I know that it grew in this country; you will therefore oblige me particularly, and I dare say my sister likewise, if you will explain to us what it is, and the manner in which it is cultivated.

*Aunt*—Willingly, my dear. As it is a plant of great value, those who cultivate it are particularly careful in the choice of the soil they plant it in; that which bore barley last is esteemed the best: about the beginning of April it is plowed in narrow, deep furrows, and in May it is covered with dung, carefully spread, and then plowed in: at Midsummer, the land is plowed a third time, and between every fifteen or seventeen feet in breadth there is a large trench left, which serves to throw weeds in at a proper season. In  
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the month of July they plant the roots, at about three inches distance from each other, and the same depth ; in September they begin to spire, which is known by taking up some ; the ground is then weeded with a sharp hoe, and the weeds raked into the furrows ; some time after the flowers appear, which yield but little saffron the first year ; more the second, and most of all the third. At the end of October, when the flowering season is over, the bulbs or roots are taken out of the ground, and hung in a dry place till the spring, when they are put into the earth again. I must now give you an account of the flower : it rises from a bulbous root, (that is, <sup>in the form of</sup> ~~from~~ an onion ; ) the leaves resemble those of grass, that have a white line running along the middle. The stalk is short, and bears on the top a purplish blue flower, deeply cut in six sedgements ; in the middle of the

the flower arises a whitish pistil, divided at the top into three chieves, (that is threads in the flower,) the lower part of which is slender and pale-coloured, the upper parts of a deep orange red, and finely indented about the sides. The flowers are gathered in a morning, before the sun rises, and the chieves, which are the saffron, are picked out, and dried in a sieve, by a gentle fire, or on a small kiln, made for that purpose; then they are pressed together into cakes. Though each flower produces so little, yet the quantity obtained from an acre of ground is very great, and said to weigh, when wet, from eighty to a hundred pounds; and when dried, twenty-five. Saffron is reckoned of great service in inward complaints, and is also a fine aromatic.

We

We shall now continue our journey to Thaxted, 42 miles from the metropolis, where there is nothing worthy of notice. Dunmow is 36 miles, and Braintree 42, from London: it carries on a manufacture of baize and says. Two miles to the north is Bocking, where they make a sort of baize, different from what is made elsewhere, and, on that account, it is called (after the name of the place) Bocking. Coxall, or otherwise Coggeshall, and Hatfield, are places of little note; the first 44, and the last 30 miles from London. it is also called Hatfield Regis, to distinguish it from a town of the same name in Hertfordshire. Epping is noted for sending to London, at the distance of 17 miles, the finest fresh butter that is made, which bears the name of the town. Epping forest is a royal chace, where deer are kept for the king's diversion.

Chipping,



Chipping, Ongar, Waltham Abbey, and Rumford ; the first is 21, and the two others 12 miles from London. Barking is chiefly inhabited by fishermen, who carry up their fish in boats, called smacks, to London, from whence it is 10 miles. Tilbury is only noted for its fort, 28 miles from London. Brentwood is a great thoroughfare town, and the inhabitants are chiefly maintained by what they get from passengers of all denominations ; it is 18, and Billericay 24 miles from London. Chelmsford is also a great thoroughfare ; the assizes for the county is held here ; it is a very populous place, 28 miles from London. Rayleigh is 36 miles east of London.

At Malden is carried on a considerable trade in coals, iron, deal, corn, wine, brandy, and rum ; the three last articles are imported from foreign countries ;

countries ; the wine from Portugal, the brandy from France, and the rum from Jamaica. The situation of the town, at the mouth of two rivers, the Chelmer and the Blackwater, is a great advantage to its commerce : the distance from London is 38 miles.

Witham is 38 miles from London, whither a number of people resort in the summer to drink the waters of the spa. Rochford is 40 miles, and Leigh (otherwise Lee) is 39 miles from London : the latter is much frequented by hoys. Mersey is a small island, eight miles to the south of Colchester.

Colchester, 50 miles from London, is a very considerable town, where is a manufacture of baize and says, the greatest in the kingdom ; also, a great trade in oysters, which are barrelled, and sent to the metropolis. The inhabitants

bitants are noted for candying sea-holly, known by the name of eringo-root, which grows in great plenty on the shore, near the town, and is of a bluish colour, with thick prickly leaves; the flowers are white, and set in prickly heads, under which a number of little oblong leaves stand in the form of a star; the root is very long and slender, with a few knots, brownish on the outside, and white within; it has a very agreeable taste, and is used in medicine.

Mannigtree has a pretty considerable trade in corn, coal, deal, and iron. A great quantity of fish is carried from this town to Colchester, especially whittings, which are reckoned finer at this place than any where else. It is 60 miles from the metropolis. Harwich is 70 miles from London, and is the station of the packet boats between  
England

England and Holland, being the most easterly point of land in the county, and opposite the Dutch shore.

The rivers of this county are the Thames, the Stour, the Lea, the Stort, the Coln, the Chelmar, and the Blackwater.

There are several islands of lesser note along the eastern coast, besides the Mersey, the Osey, and Canvey Isle. //

We shall return from Harwich, along the coast, and, beyond Canvey Island, cross the Thames at Tilbury, and enter

## KENT.

AT Gravesend, round the town, are a great many kitchen-gardens, which yield excellent Asparagus, that  
are



are sent in great quantities to London, distant 22 miles ; from thence, the road leads to Rochester, a bishop's see, 30 miles from London, joined to the Stroud by a handsome bridge. Within the jurisdiction of the city, in the creeks of the Medway, is an oyster fishery. Chatham joins to Rochester on the east, and is a station for the royal navy.

Milton is a town of great repute for beautiful oysters, which are caught in the fishery here in great quantities, and are called Melton oysters ; those are sent up to London, which is distant from this place 44 miles. To the north of the town is the Isle of Shepey, 21 miles in circumference, which takes its name from the quantity of sheep fed on it, and yields plenty of corn. Sheerness is a point of the island, where a branch of the river Medway, called the

the West Swale, falls into the Thames. here is a royal fort. Queenborough is a place of great antiquity on the island ; the inhabitants are very poor, and chiefly oyster dredgers.

From Feversham, London, at the distance of 48 miles, is supplied with abundance of apples, cherries, and the best oysters for stewing. The next place we come to is

Canterbury, 56 miles from London, is the metropolitan see of all England, and one of the capital towns of the kingdom : its cathedral is reckoned one of the finest in England, and the town derives great advantages from the hop-grounds that are round it, which consists of several thousand acres of land, some years ago esteemed the greatest plantations in this kingdom. They have, also, a manner  
of

of making boar's flesh into brawn, which is much esteemed: but the greatest and most valuable manufacture carried on here, is that of broad filks, which are brought to such perfection as to be thought, by many, preferable to foreign filks: great quantities of them are sent to London. They have, likewise, a very beautiful manufacture of coloured muslin, brought to great perfection, known by the name of Canterbury muslin.

*Louisa*—You will not proceed, without explaining to us all the particulars relating to the silk manufacture, and the manner in which it is obtained from the worm, to the time that it is fit for use.

*Aunt*—You know that silk is the produce of an insect, called the silkworm, curious both on account of the  
matter

matter it produces, and the various forms it assumes, before as well as after its being enveloped in the ball it weaves itself. From a grain, or seed, which is its first state, it becomes a large worm, of a whitish colour, inclining to yellow, which, shut up in the cod, appears dead, in the shape of a greenish bean; when it awakes it makes a passage out of the cod, in the shape of a butterfly; when dying, it prepares itself, by casting a grain, or seed, for a new life, which the heat of summer assists it to resume: its first day's employment, when come to sufficient strength, is to make its web; on the second, it gives a form to the cod, and almost covers itself over with silk; the third day it is quite hid, and the following it is employed in thickening and strengthening the cod, always working from one single end that is never broken, and which is so fine

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and



and long as to reach the length of six English miles. In ten days the cod is in perfection, when it is taken down from the branches of the mulberry-tree, where the worm hung it, which, if left, would make itself a passage out about the fifteenth day.

The first, finest, and strongest cods are kept for the grain, and the rest carefully wound; they are of different colours, but the most common are yellow, orange-colour, sea-green, some of a flesh-colour, others of a sulphur, and some white; but all the shades are lost in dying and preparing the silk. To wind it off the cod two machines are necessary; the one a furnace, or copper, and the other a frame to draw the silk. When the copper has boiled, the winder throws in a handful or two of cods; the whole is then stirred briskly about with birchen rods, in the shape  
of

of brushes, and when the heat and agitation have loosened the ends of the filk, they are apt to catch at the rods; they are then drawn out and joined ten, twelve, or fourteen together, and formed into threads, according to the size required for the work they are designed. When joined into two or three threads, they are passed into the holes of three iron rods, in front of the reel, upon the bobbins; they are then drawn to the reel, and fastened to an arm of it, and the workman gives it a motion, by turning the handle, at the same time guides the threads and makes them as even as possible. Two workmen will spin and reel three pounds of filk in a day. As to the cods, after they are opened with scissors, they are used in making artificial flowers.

Having gone through the progress of winding the filk, I think it necessary

to mention to you, that most of the silk woven in England is imported raw, the country being too cold to keep the worms in the open air, as is practised abroad; and to bring them up in the house would be attended with more trouble than the profits of the silk would balance. Some ladies keep worms for their amusement, to have the pleasure of witnessing their different changes; but it is what I do not wish you to do, as they make a great deal of dirt, and occasion a great loss of time. Those who prepare the silk for the weavers are called throwsters. The silk is worked with a shuttle on a loom, a machine which raises the threads of the warp, in order to throw the shoot and strike it close. Lustings and taffeties are worked in the manner of cloth; but figured or striped silks require a great deal more art; but that I may not tire you, by dwelling too long

long on the same subject, I will defer saying any further on this till another opportunity, and proceed on our journey to Sandwich, a cinque port, 70 miles from London, whose chief trade is in malting and shipping. It supplies the nursery-men of London with the greatest part of their stock for kitchen gardens; and the carrots of this town are reckoned the largest and finest in the island.

The Isle of Thanet is the most eastern point of the kingdom: it extends about nine miles from east to west, and eight from north to south. The places most worthy of notice in this island are Margate and Ramsgate; the former is on the north side of the island, and is much frequented by the inhabitants of London and its vicinity, from whence it is 72 miles distant, for the benefit of sea-bathing. The trade of Ramsgate



gate is very inconsiderable; the distance from the capital the same as Margate, and is resorted to for the same reason. Deal is chiefly inhabited by sea-faring people, and is 75 miles from London. Dover is 74 miles, and is a cinque port, fortified by a very strong castle, from whence, on a clear day, the cliffs of Calais may be distinctly seen. Upon the rocks there grows a plant, called samphire, much valued; which, when pickled, is sent to London, and several parts of the kingdom. Folkestone has several hundred fishing-boats continually employed in carrying fish to London, from whence it is 69 miles. Hithe is at the same distance, and is remarkable for nothing but being one of the cinque ports.

Romney Marsh is a tract of land, about twenty miles long, and eight wide, containing between 40 and  
50,000

50,000 acres of land, of the richest pasture in England, where great quantities of sheep, and herds of black cattle, are fed, which are sent from different parts : the sheep exceed in size those of Leicestershire and Lincolnshire, and the oxen are the largest in England. The Marsh contains two towns, Old and New Romney.—You know how good and valuable sheep are ; the skin is of so much worth, that were the flesh not eatable, they still would be much esteemed ; for after the wool is taken from the skin, the last is sold to the curriers, and the wool disposed of in pockets, according to its quality ; each fleece of which contains three different sorts ; the first, called mother-wool, is that off the back and neck ; the second, the wool of the tail and legs ; the third, that of the breast and under the belly. When we come to the towns where the woolen manufac-

tures are carried on, I will then give you a progressive account of the manner in which it is employed, from the time it is taken from the animal to its being made into cloth.

*Maria*—You have often told us what valuable animals oxen are, and have often excited my curiosity by saying that there is no part of this creature but what is useful; as you have just mentioned that those of Romney-marsh are the largest in England, I think this a very good opportunity to beg you to explain to us the different things in which any part of them is used, and at the same time to give us some account of the animal itself.

*Aunt*—Though that belongs more properly to natural history, yet it is not foreign to my design in the descriptions which I give you, as they are meant to  
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point out to you the different sources from which wealth springs, and how far human industry has exerted itself to find out the means of acquiring it. As the ox has been of use in several inventions, I will mention some of its habits: the bull is naturally a fierce and terrible animal; when angry he has an air of sullen majesty, and often tears up the ground with his feet and horns; although he might be trained to labour, his obedience cannot be depended on; his sleep is short and flight; he wakes at the least noise; as he generally lies on the left side, the kidneys of that side are larger than the other. Those of a reddish or black colour are most esteemed. It has four stomachs, and eats very quick; when the first is filled he lays down to ruminate; the second stomach is a large bag, a continuation of the first, when the grass has been chewed over again,



it is reduced to a kind of marsh, like boiled spinage, and sent into the third stomach where it digests, but not completely till it comes to the fourth. The age of the animal is known by the teeth and horns; at four years old the horns are small pointed and smooth, and thickest near the head; the next year the thick part is pushed further from the head by a horny ring, which is ended by another swelling part; and every year that the ox lives, the new ring grows from the base of the horn, so that his age is easily known by counting four years at the first ring, and then one for every succeeding; they generally live fourteen or fifteen years. You will see that I was not mistaken when I told you that every part of this animal was useful. The cow you know is the female of the species; from her we have milk that makes butter, cheese, puddings and other articles of our food; and we should find

find it very difficult to supply the want of it ; she gives us calves likewise, those when killed are excellent veal ; the fat, blood, marrow, hide, hair, horns, hoofs, liver, gall, spleen, bones, and dung, have each their particular use in manufacture, commerce, and medicine. The skin when tanned and curried, serves for boots, shoes, and every other convenience of life in which leather is employed.

Vellum is made of the thinnest calfskin. Of the horns are made combs, boxes, handles for knives, and drinking vessels ; and when softened by water, they form a transparent coat for the sides of lanthorns ; the very dust and filings of the horns are found serviceable in manuring cold lands ; the matter they are formed on, (called the slough) when dry, makes walls and fences, which if kept from moisture will last a long time :

mixed with gravel it is excellent for mending roads, and a good manure ; it is also employed in hardening and giving a proper temper to metal. The cuttings, parings, and scraps of hides, are made into glue. The bones are used where ivory would be too expensive ; by that means the common people are served with many conveniencies at an easy rate ; there is an oil extracted from the bones used by coachmakers in dressing and cleaning harness, and whatever belongs to a coach ; when calcined they are used in the smelting-trade. The blood is a good manure for fruit-trees, and is a principal ingredient in making Prussian blue. The sinews are made into a kind of thread used by sadlers in sewing. The hair is employed different ways ; that of the tail is mixed with horses hair and spun or wove into ropes ; the short hair serves to stuff saddles and seats of different kinds,  
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treffes, &c. The fat, fuet, and tallow, are made into candles, and are also used in refining salt.

*Maria*—You have given us a very entertaining description ; I should never have imagined that the ox was useful in such a diversity of employments, and shall for the future set a great value on him. You said that the parings of the hides, and scrapings were made into glue, be so good as to tell us how it is done, as I do not comprehend it.

*Aunt*—The parings, &c. are soaked for two or three days in water and washed, then they are boiled to the thickness of a jelly ; this jelly is passed while hot through osier baskets, to part it from the ordures ; when it has stood long enough for all the filth to settle at the bottom, it is then boiled a second time, poured into flat frames, and left till



till it is pretty hard and solid, and then cut into square pieces; it is afterwards dried in the wind in a coarse net, and hung up in a string that it may dry thoroughly. From Romney, the first towns we come to are Tenterden, 60; Cranbrook, 54; and Goudhurst 43 miles from London: as they contain nothing to attract our attention, we will proceed to Tunbridge Wells. The town is 5 miles from the wells, and 29 from London; they are much resorted to by people of fashion, which renders it a place of diversion in summer a variety of little trifles are made in wood, called from the place Tunbridge-ware. At Sevenoaks, we shall take the road to Wrotham, the first 23, the other 25 miles from London. It is said to have taken its name from an herb called wort that grows in its neighbourhood. The road leads from thence to Malling, 29 miles from London, and from thence to Maidstone; the chief

chief trade is in thread, made in great perfection, and hops, of which there are great plantations in the neighbourhood. It is thought that London, from whence it is 36 miles, is supplied with more particulars than from any single market-town in England. From the Weald of Kent, which begins about six miles off, they carry large Kentish Bulls, and great quantities of the largest timber for the king's dock-yards. From the country round the town are brought great quantities of corn, apples, and cherries; likewise, a kind of paving-stone, about eight or ten inches square, used in paving court-yards: here is, also, found a fine white sand for the glass-houses, esteemed the best in England for melting into flint glass and looking-glass plates: it is also used in writing, and known by the name of silver sand.—Aylesford is 34, Lenham, 47, and

47, and Ashford and Wye, 57 miles from London.

We shall now return, and go north of the county on the Thames. West of Gravesend is Dartford, 16 miles from London : the first paper-mill ever built in England was erected on the river Dart, which runs through this town and falls into the Thames : also, the first mill for splitting iron bars to make wire was built on this river. The town is full of inns. At Erith, on the bank of the Thames, are chalk-hills ; from whence London, and the country round, and even Holland and Flanders, are supplied with lime, or chalk to make it, for which they have a very easy way of digging, in the following manner : as it is found on the sides of hills, the workmen undermine them so far as appears proper ; they then dig a trench at the top, as far distant from the edge  
as

as the undermining goes at the bottom ; this they fill with water, which soaks through in the space of a night, and the whole flake falls down at once. In some parts of the kingdom, chalk is blown out of large pits in the hills by gunpowder, in others it lies deeper, and they are forced to dig for it a considerable depth, and draw it up in buckets. Chalk is of two kinds ; hard and dry, or soft and unctuous : the hard sort is burnt into lime. Chalk is used in houses for cleaning and polishing metalline or glass utensils : in this case it is powdered and washed from the gritty matter it may contain, and is then called whiting.

Woolwich is considerable for its shipyard, 9 miles from London, and 6 miles from it is Greenwich : here is a beautiful hospital for aged, and disabled seamen, with a handsome park ; and also an observatory called Flamsted-house. Deptford is a mile nearer to London, it  
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is only worth notice for its dock-yards. Bromley is 6 miles south of Greenwich. The principal rivers of this county are the Thames, the Medway, the Stour, and the Darent. In this county are many woods of birchen, from whence the broom-makers in London are supplied; here is also found woad, madder, and samphire, which are peculiar to this county. I have already mentioned the last in speaking of Dover. The Isle of Shepey, has also a great number of marine plants that grow in the salt marshes, which induce the curious in botany to visit the island frequently in the midst of summer when these plants are in perfection.

*Louisa*—Explain to us the use of woad and madder. Though you have mentioned samphire, you have said nothing of its growth, nor of the use that is made of it.

*Aunt*

*Aunt*—There are two species of samphire; the principal is the common maritime sort; the fruit is oval, has a fibrous penetrating root, the stalk rises two feet high, the leaves consist of many small spear shaped lobes, with round yellow flowers; it grows naturally on the sea coasts among the gravel and rocks, the leaves are an excellent pickle used for sauce, and are by many eaten raw in salads; it has a saltish relish, palatable and comfortable to the stomach; it is very difficult to preserve in gardens. Madder is a long and small root, remarkable for its red colour, the thickest part seldom exceeds the bigness of a goose quill; it has very little smell, but a remarkable taste of sweet and bitter, it is used in great quantities by the dyers for dying red, and other colours. Woad is used by dyers to give a blue colour; the seeds are sown in the spring, the leaves resemble those of rib-wort

rib-wort plaintain; these plants have generally five crops of leaves every year; the first is the best, and the rest in their order.

When the leaves are ripe they are carried to a woad-mill to grind small, after they lay in heaps eight or ten days, and are then made into balls, and laid on hurdles in the shade to dry; they are then ground to powder, spread on a floor and watered, and left to smoke and heat till they become quite dry; it makes a very deep blue, almost black, and is the base of so many sorts of colours, that the dyers have a scale by which they compose the several casts of woad, from the brightest to the deepest. In the county of Kent are several warrens of grey rabbits that supply the London market. We shall now enter

SURRY

## SURREY.

SOME of this county is that part of London, called Southwark, it supplies the town with herbs and fruits, especially walnuts, of which there is a great quantity of trees in the county. Kew, and Richmond are 8 miles from town, and esteemed the finest villages in England; in the first is the king's palace, and near it a fine park. Kingston-upon-Thames carries on a considerable trade in corn, by the river, and is 14 miles from London. Croydon market is chiefly for oats and oatmeal; considerable quantities of charcoal is made there and sent to London; charcoal is made of wood, burnt to a certain degree, and then water is thrown on it to stop the fury of the fire; it is then turned and spread till no more fire appears, then shovelled



shovelled in great heaps, and when cold put into sacks.

Ewell is 14, and Epfom 16 miles from London. The mineral salt of Epfom is in repute all over Europe. Leatherhead is 19, Gatton 20, Bletchingly 21, and Rygate 22 miles from London; the three last send each two members to parliament. Dorking is 24 miles from London. Chertsey, on the banks of the Thames, has by means of the river a good trade in malt; it is 19, and Woking 28 miles from London. Farnham has one of the greatest markets for wheat, oats, and barley, in the kingdom; near the town great quantities of hops are cultivated; it is 40 miles from the metropolis. Guildford is the county town on the river Wey; a great deal of flour, and timber are sent to London by it, at the distance of 30 miles. Here is a cloth manufacture, that was much  
more

more considerable formerly than at present. Godalming has a woollen manufacture of blue and mixed kerseys, also one of wove stockings; it is thought that the best whited brown paper is made here, as is also some peat for firing. Liquorice grows near the town, which is 34 miles from London. Haselmere is on the confines of the county, 41 miles from London; near this town there is a great deal of iron ore, and some marble quarries; likewise fine fuller's earth. —The rivers of this county are the Thames, the Mole, the Wey, and the Wandle. From Haselmere we enter

## SUSSEX.

PURSUING the great road we come to the following towns, Medhurst 55; Petworth, 48; Cuckfield, 42; Horsham, 36; and east Grinstead, 29 miles from London; they contain nothing worthy

worthy of notice, therefore I mention them all together. Rye is a large seaport, 68 miles from London, whose trade is chiefly in hops, timber, wool, fish, cannon, chimney backs, kettles, and various other articles made of iron, as this county abounds in iron mines. At Bakely, 4 miles from the town, and at Breed, 5 miles south of it, are iron works, where all the cast-iron that is sold at Rye comes from. Winchelsea was formerly a place of great trade, but is of no note at present; it is 71 miles from London. Hastings is one of the cinque ports, 62 miles from the metropolis; the inhabitants are chiefly employed in the fishing trade. Battel is noted for making the best gunpowder in Europe; the distance from the capital is 56 miles. Hailsham is 53, Pevensea East Bourne 65, and Seaford 59 miles from London; the last mentioned town is noted for a little bird, called the wheat-ear,

wheat-ear, no bigger than a lark, and much valued; which is caught by digging a hole in the ground, into which a snare of horse-hair is put, and the hole almost covered with turf, the grass-side being turned downwards: the birds are so timid, that even the shadow of a cloud will frighten them into these cavities; and they are so very fat, that when caught, they cannot be easily carried to any considerable distance. Newhaven is 57 miles from London. Brighthelmstone, 58, is a place of fashionable resort for bathing, and drinking the waters, from whence packet-boats go to Normandy in France. Lewes is one of the largest and most populous towns in the county; the Ouse runs through it; on the river were several iron furnaces for casting cannon, and other articles in the iron trade: it is a place of great commerce, situated 51 miles from London. At Newshoreham, distant from

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the metropolis 56 miles, great numbers of ships are built, both for war, and trade. Steyning is 50; Bramber, 51; and Arundel, 56 miles from London. Chichester is a bishop's see, and consequently a city, 63 miles from the capital; the inhabitants make great quantities of malt, but their chief manufacture is that of making needles, the art of which consists in the just temper of the steel, drawn by a machine to a wire of the size the needles intended to be, which is then cut into lengths, the eye struck with an instrument for that purpose, and the point filed down.

The north part of this county is covered with wood, with which it supplies the dock-yards belonging to the navy with timber; and with the small branches great quantities of charcoal are made. Quarries of stone are very common in this county; as is another production

duction of the earth, called tale; a fossil of which there are different kinds, used in some arts and manufactures.

*Maria*—Before we quit this county you will favour us with a description of the iron mines, and the manner that iron is wrought into bars, as I know nothing of the state in which it is found, nor concerning the manufacturing of it.

*Aunt*—Iron is found in ore, mixed in the mines with different substances, such as earth, salt, sulphur, &c. all together. When we come to a discription of Cornwall, I will give you an account of the mines, and the manner of working them; I shall pass over it now, to avoid a repetition of the same thing; but will give you here an idea of the operation that the ore undergoes after it is brought out of the mine: the first is calcining, that is purifying it by fire, which is done  
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in kilns, filled to the top with coals and ore, in layers one above another ; a fire is lit at the bottom that burns till the coals are consumed, which is then renewed with ore and coals as at the first : this is done without melting the metal, and serves to consume the drossy parts of it ; and also supplies the beating and washing, that is used in other metals, after it is carried to the furnace, a large place, about eight yards square on the outside : behind it are fixed two huge pair of bellows, the noses of which meet at a little hole near the bottom, and are compressed together by certain buttons, fixed on the middle of a large wheel, turned by water ; then the furnace is filled with the ore and charcoal, and the fire well kindled, the metal melts, and trickles down into receivers, placed at the bottom : at the mouth of the furnace lies a large bed of sand furrowed, in the shape the iron is to be cast. When the  
furnace

furnace is once at work, it is kept constantly employed for months together, without the fire ever being suffered to go out day or night.

The Rivers of this county are the Avon, the Ouse, the Adur, the Rother, and the Lavant. From Chichester we shall enter

## HAMPSHIRE.

THE first town we come to is Havant, on the very edge of the county, 65 miles from London. On the north-east side of the county is Petersfield, 55; Alresford, 60; Alton, 50; and Odiam 41 miles from the metropolis: I mention them together, as they contain nothing to attract our curiosity. The next town is Basingstoke, where there is a manufacture of drugget and shalloons, and a considerable trade in malt.



It is 48, and Kingclear, the next town, 52 miles from London. Whitchurch is 60 miles from the metropolis, whose chief trade is in serge, shalloon, and other articles of the woolen manufacture. Though great quantities of malt are made at Andover, yet its principal manufacture is shalloon: the distance from London is 66 miles, and Stockbridge, 68.

Winchester is a bishop's see, 66 miles from London; in the city is a most magnificent building, called the Hospital of the Holy Cross. Romsey, 78 miles from the metropolis, is chiefly inhabited by clothiers: there is a considerable manufacture of shalloon, called rattinets, which employs a great number of hands. Waltham is 72 miles from London, and Farnham 65. The next place of note is Portsmouth, one of the principal harbours in England  
for

for laying up the royal navy. There is a fine yard, full of all manner of stores, both for fitting out, and repairing ships; the rope-house is one continued room of 170 feet long: the largest cables are made here, which require a hundred men to work one of them, and the labour is so hard that they can only work four hours a day. You know that cables serve to keep ships at anchor: every ship has three; the chief cable, the common cable, and the small cable: every cable of whatever thickness, is composed of three strands; every strand of three ropes; and every rope of three twists: the twist is made of more or less threads, according as the cable is to be, thick or thin. Gosport is situated opposite to Portsmouth, on the other side of the mouth of the harbour, and is a place of great trade, 74 miles from London.

To the east of Portsmouth are two small islands, Hatting and Thorney; each has a parish church, and the inhabitants are employed in making salt. Southampton is situated on an arm of the sea, 78 miles from London; is the county town, and has a very fine street ending in a quay. The nobility resort here in the summer months for the advantage of sea-bathing. The poor boys of this town, belonging to Saint John's hospital, are all instructed in the woollen manufacture. Fordingbridge is 85, and Ringwood 96 miles from London: the last has manufactures of drugget, narrow cloth, stockings, and leather. Christchurch has manufactures of silk, stockings and gloves: it is 101 miles from London. Between this and Southampton bay lies the New Forest, at least 40 miles in circumference, which furnishes a great deal

deal of timber, especially oak, to build ships.

Linnington is 95 miles from London. About half a mile from the town are salt-works ; and what is made there is reckoned the best in England for curing fish and salting meat. The manner in which salt is made is this : that called bay-salt is made by pits, dug in the ground, and filled with sea-water, which evaporates by the rays of the sun, and when wholly exhaled by the force of the sun and air, the salt is left at the bottom of the pit in a hard crust. But, as this salt takes a length of time to make, there is little of it made in comparison to that made by boiling, which is the common salt. This is made in a saltern, or boiling-house, wherein is a furnace and two large iron pans, supported at the bottom by strong iron bars ; the pans are filled with sea-



water, and a large fire is lighted in the furnace; they then take either the whites of eggs, or the blood of oxen or sheep, and mix it with sea-water, and throw it into the pan before it boils, to clarify the water; they stir it about with a rake, and keep skimming it as the scum rises; after it has boiled about four hours, the pan is filled a second time; then the scum pans are taken out and emptied of a white powder, and put in again. After the second filling, it boils ten or twelve hours longer, and when the water is evaporated the salt lies nearly dry at the bottom, which is raked to one side of the base to drain from the brine, and then put into barrows and carried to the store-house, and delivered to proper officers. It generally takes twenty-four hours in making: when it is at the store-house, it is put into drabs, like horses stalls, with a sliding board, in which the salt remains

remains three or four days, till it is thoroughly dry, by the brine running from it. The great quantity that is made and consumed, makes it a very profitable article of trade.

We shall cross over to the Isle of Wight, whose greatest extent from east to west is 20 miles; 12 from north to south; and 60 in circumference. Newport is the principal town on the island, 92 miles from London. East and West-Cowes are pretty towns, 4 miles from Newport, and 87 from London: they have a good trade, and several rich merchants. Yarmouth is 100 miles from the metropolis. It is said that the sheep and hogs of Hampshire excel all others in England; both the wool and the flesh of the sheep are remarkably fine. This county has also the best and worst honey in England; that of the champain is esteemed the

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best,

best, and that from the heaths is reckoned the worst.

The principal rivers are the Avon, the Tese, and the Itching. We shall now cross the Avon, and enter

### DORSETSHIRE.

THE first town we come to is Pool, 100 miles from London: the inhabitants carry on a great trade to Newfoundland, the West-Indies, and other parts. Here is great plenty of excellent fish, especially mackerel. Oysters are pickled, barrelled, and sent to Spain, Italy, the West-Indies, and other parts. Great quantities of Purbeck stone are likewise exported from hence for building. Near this town is tobacco-pipe clay, a very fine earth, which is moistened and formed on a mould, and then dried and baked in a furnace.

The

The principal trade of Wareham is in tobacco-pipe clay, of which the best in Great Britain is dug out of an eminence in the neighbourhood, called Hunger-hill; the soil about produces a great quantity of garlic: the distance from London is 109 miles. Weymouth has a considerable trade in the Newfoundland fishery; and the wine trade is also very great: it is 132 miles from the metropolis. Melcomb Regis is at the same distance. Abbotsbury is within half a mile of the sea. The principal business of the inhabitants of Dorchester is breeding sheep, of which are no less than 600,000 fed within six miles of the town; and the ewes generally bring two lambs. The serge manufacture is much decayed here; but the beer of this town still retains its wonted reputation, having for many years been famous for its excellence, great quantities of which are sent to  
the



the metropolis, from whence it is 122 miles. Frampton is four miles from Dorchester. Bridport is 139; Bemister, 141; and Evershot, 130 miles from London. Cerne Abbey is 124; and Sherborne, 118 miles from the metropolis. The chief manufactures of this town are haberdashery, buttons, and bone lace: here is also a silk mill, which employs a number of hands.

Middleton, or Milton Abbey, is 123; Sturminster and Stalbridge, both 111; and Shaftesbury, 102 miles from London. Sturminster has a considerable manufacture of swan-skin, baize, and coarse blanketing, which employ in spinning the inhabitants of the neighbouring villages. At Blandford, the principal traders are clothiers and maltsters; besides which, there is a manufacture of shirt-buttons. This town is 107, and Bere Regis, 115 miles from the

the capital. Wimborne is 103, and Cranborne, 94 miles from London.

The islands belonging to this county are Purbeck and Portland Isle, both of which contain fine quarries of stone for building; the finest is called after the name of the place where it is found, Portland stone: here is also a stone used in making what is called plaister of Paris. Great plenty of marble is in these islands, and an article of considerable trade to the inhabitants. The wool of the sheep of this county is reckoned superior to others, and is much sought after by the clothiers.

The principal rivers of Dorsetshire, are the Stour, the From, the Piddle, the Liddon, the Derelish, and the Allen. From Cranborne we shall enter

## WILTSHIRE.

THE first place we come to, is the city of Salisbury, a bishop's see, 82 miles from London, where are manufactures of flannels, druggets, and the cloths, called Salisbury whites : also, a manufacture of scissors, and bone lace, (a name given to coarse, common lace.) Salisbury Plain is near 50 miles in length, from east to west ; and in some places from 35 to 40 in breadth, from north to south. The greatest curiosity of the kind in England is on this plain, called Stonehenge, a noble monument of antiquity, supposed to have been a temple of the ancient druids. To the south-east of Salisbury is Downton, 82 ; and to the north is Old Sarum, at the same distance from London. Wilton is the county town, 85 miles from the metropolis, where is one of the most

most magnificent seats in England, belonging to the Earl of Pembroke. In this town is a great manufacture of carpets, called from the name of the town, Wilton carpets, of which you are both admirers.

*Maria*—That is very true ; but it is with that, as with many other things I admire, without comprehending the manner in which they are made ; therefore you will be so good as to explain it to us, and the manner the different patterns are drawn, as I cannot imagine what gives them that pleasing roughness and brilliancy.

*Aunt*—They are wrought on a loom : the warp is fixed in the same manner as for cloth or linen ; but, before the weaver begins to throw his shuttle, to make the woof, the design for the pattern of flowers or ornaments intended, must



must be drawn on a paper full of lines, crossways, to imitate the threads of the warp and woof; then the design is made and coloured; after which, a workman lays it on the warp, by fastening a number of packthreads thereto, which answer to the lines drawn on the paper: these threads are so disposed as as to rise the parts of the warp, to which they are fastened, and show the workman what coloured worsted he must put into the eye of his shuttle for woof; then the design is laid on the simbolt and read, that is, little strings are fastened to packthreads to raise the threads named, which are on the side of the loom the men work: those little strings with slip knots drop to the bottom of the simbolt; and when the design is finished, they have nothing to do but to raise them again, and continue in that manner to the end of the piece. When the weaving part of the  
work

work begins, the workmen have brass or steel rods, which they lay across the warp, and pass the shuttle, strike the bottom to tighten the threads of the woof, and then, with a sharp instrument, like a knife, drawn across the loom, cuts out the rod that was worked in ; and by that means raises the worsted in the manner seen in the Wilton carpets.

Leaving Wilton, on the other side of the Avon, is Amesbury, 79 ; Ludgerhall, 75 ; Great Bedwin, 71 ; Marlborough, 75 ; Auburn, 73 ; Swindon, 84 ; Highworth, 77 ; and Cricklade, 83 miles from London. Wotton-Basset has a small manufacture of cloth ; the distance from London, 87 miles, and Malmesbury is 95. Calne and Chippenham have both a small manufacture of cloth ; the first 87, and the last, 94 miles from the metropolis.

Corsham

Corsham is 97 miles from London. Devizes is a place of good trade, having several woollen manufactures, particularly druggets; and a considerable trade in malt, 89 miles from the capital. At Bradford there is a considerable manufacture of broad cloth; likewise, one at Trowbridge and Westbury. This last has also a considerable market for corn. Trowbridge is 99, and the other two towns are each 102 miles from the metropolis. Lavington, 88 miles from London, has a good corn market. Warminster is one of the largest corn markets, and has the greatest trade in malt of any town in the west of England; the inhabitants also deal largely in wool, cloth, and cheese. It is 97 miles from the metropolis, and Heytesbury 93. Hindon has a manufacture of fine twist; and Mere is a considerable staple for wool: the first

first 97, and the other 102 miles from London.

The principal rivers of this county are the Thames, (under the name of Isis,) the upper and lower Avon, the Kennit, the Bourne, the Willey, and the Nedder. //

## SOMERSETSHIRE.

FROM Mere we shall enter this county, renowned all over Europe for the two most celebrated mineral waters in the kingdom, those of Bath and Bristol, besides others of different kinds. The air of this county is reckoned the mildest in England, and in general very healthy, especially on the hills, where it is exceedingly fine.

The first town we come to is Frome,  
104 miles from London, on the east  
part



part of the Mendip-hills, whose trade is so great in the woolen manufactures, that cloth is sent from it every year to the amount of seven hundred thousand pounds. This town is noted too for excellent beer, so fine as to be often preferred to other liquors. Phillip Norton is at the same distance from London as Frome.

Bath is one of the most celebrated cities in England, on account of its mineral waters, whose efficacy is well known. For regularity and magnificence, this city surpasses all others in England, as nothing can be more beautiful than the buildings, rooms, and other public places : the distance from London 108 miles. Pensford is west of Bath, and Cainsham north-west : the chief trade of the inhabitants of the latter town is making malt : the first is  
situated

situated at the distance of 118, and the other 115 miles from London.

Bristol is a city 7 miles round, and the largest for trade in England, except London, from whence it is 117 miles. The situation of Bristol, on the western coast, contributes greatly to its foreign trade: considerable manufactures of woolen stuffs, particularly cantaloons, are carried on here. In this city are no less than fifteen glass-houses, where drinking glasses, bottles, and plates for looking-glasses are made. On the beach of the channel is found a sea plant, called laver, said to be found nowhere else in the kingdom, of which the inhabitants make cakes, reckoned very wholesome and nourishing food, and sell a great quantity of them.

*Maria*—I am delighted that we are come to a place where glass is made!

as you are about to tell us the manner in which it is done, and how looking-glasses are made, pray go on, I am all attention, and will not interrupt you.

*Aunt*—Glass is a composition, produced from salt and sand, or stone by fire : when these are calcined together, they are called frit ; the salt is produced from a kind of ashes, called polverine, imported from abroad ; and sometimes it is made from a sea-plant, called kelp ; the ashes are made of a vegetable, growing in great abundance in the country, called kali, and sometimes salt-wort, and also glass weed, from the use made of its ashes. From Maidstone in Kent, the glass-houses are furnished with white sand for crystal-glass, and with coarser for green glass. There are three sorts of furnaces used in making glass ; the one to prepare the frit is called calcar ; this furnace is  
made

made like an oven, ten feet long, seven broad at the widest part, and two feet in depth : on one of the sides there is a trench, six inches square, separated from the furnace at the mouth by bricks ; into this trench sea-coal is put ; the flame is carried into every part of the calcar, and reverberated from the roof upon the frit ; over the surface of which the smoak flies very black, and comes out at the mouth of the furnace ; the coals burn in iron grates and the ashes fall through. When the first is sufficiently calcined, which takes about six hours, it is taken out of the calcar, and laid in a dry place, free from dust, and is not used till three or four months after. The second furnace is to work the glass : the frit is set in pots in the furnace, with a proper quantity of iron ore, called manganese, mixed with it, to clear away the greenish colour from the white glass, while

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in fusion. The working furnace is three yards round, and two high, divided into three parts, each of which is vaulted ; the lower part is where the fire is kept, and that never suffered to go out. The flames pass into the second partition through holes made in the top of the first, and reverberate into the pots filled with the frit, the number of which are always double, that of the holes or mouths. Each workman has two pots, one to work out of, and another to refine the metal in ; which is taken out of the pots, through the working holes, by dipping a blowing pipe, and turning it about in it, to which the metal fixes. This is repeated four times, each time rolling the end of the instrument, with the metal on it, on a piece of iron, over which is a vessel of water to cool the metal ; the workman then blows it gently with his mouth through the  
iron

iron tube, till it expands like a bladder, when he rolls it on a marble stone to polish it, and then cuts it off at the neck from the flowing pipe, healed and put into a pliable state; then pierced with an iron instrument, without breaking, and brought to the shape it is designed to be, by being turned quickly about in a circular motion: if there are any superfluities they are cut off, as the glass is soft and flexible till it becomes cool. It is now put into a third furnace, called the leer, to cool, made like a tower, into which the flames ascend. This furnace hath two mouths, through which the glasses are put with a fork, and set on a floor, and drawn out in pans to cool by degrees: when taken out from it entirely they are fit for use.

Looking-glass plates are made of the same frit; only when it is taken out of

F 2

the

the furnace it is in a cistern, drawn out by means of iron chains, on a carriage. They have a frame the size the plate is to be of, the bottom of the cistern is then split out, and the matter rushes on the frame, or table, and as it cools is reduced by a roller to its proper thickness, which is done in a minute; it is then removed into a cooling furnace, for the space of ten days, and when taken out, is fit for grinding and polishing. To grind glasses, they are laid on a large flat stone table, over that another glass, not so large as the one to be ground, is put so as to slide over it, which is cemented to a wooden plank; the whole is covered with a wheel, that is pulled backwards and forwards, and sometimes turned round; during which the workmen keep pouring sand and water over it, till it attains that degree of polish and smoothness necessary; this is a very fatiguing work:

work : the polisher then, with tripoly stone and emery, brings it to a perfect evenness and lustre. After it is made into a looking-glass, by silvering it, the plate is laid on a plain, with an edge round it, and covered over with a thin sheet of leaf lead, over which is poured quicksilver, till the lead is completely covered ; weights are then laid on the whole for a few days, after which the lead and quicksilver are fastened to the glass ; though should there be the least crack or flaw in the silvering, it cannot be mended, but must be all done over again.

I could greatly enlarge on this subject, but, I presume, what I have already advanced is sufficient to give you a distinct idea of the whole ; but if you are desirous of knowing more about it, we shall go to a glass-house and see the men work. I see you are delighted



with the propofal; in the mean time we will continue our journey on our maps; and don't you think it a very pleafing way of travelling, without fatiguing ourfelves. We were at Bristol, whose mineral waters are as juftly celebrated as, but entirely different, thofe of Bath. The foreign trade of this city is to the Weft Indies, Africa, the Mediterranean, and the Baltic feas; the trade to Ireland is alfo very confiderable, and one of the principal articles of it is hard white foap, of which great quantities are made.

The next town of note is Wrington, whose trade is chiefly owing to its fituation, as the neighbouring foil produces the principal articles of its commerce, the chief of which is lapis calimmaris, found lying near the furface of the earth, and the earth where it lies is yellow or black, but the calamine  
itself

itself is of different colours, white, reddish, grey, and blackish, which is accounted the best, used for the purpose of changing copper into brass ; it is also useful in medicine, and much esteemed in all disorders of the eyes. Near this town is dug a red bole, called both redding and ruddle, which is distributed all over England for marking sheep and other uses. In this neighbourhood also abundance of hazels grow, which is a considerable article of trade to the inhabitants, and are used in the woolen manufactories : the town is 129 miles from London. Axbridge is 135 miles from the metropolis : the inhabitants employ themselves in the culture of hazel, which grows in great abundance in the neighbouring fields. Chewton is 121 miles from London. Wells is a small, clean, well-built city, 120 miles from London, where some bone (that is course) lace is made, and the

poor are chiefly employed in knitting stockings. This city is situated among the Mendip hills, a tract of mountains, the most famous in England for lead and coal mines, and are of a very great extent, both in length and breadth. When we come to Cornwall, I shall give you a description of the mines, and the manner in which they are wrought, and therefore will not enter into an account of them at this place. The lead of those hills is not so soft or pliant, nor so easy to melt as that of other mines; it is generally exported, and employed in casting bullets and small shot. Shepton Mallet is situated among the hills, 115 miles from London: some of the inhabitants are considerable clothiers. Glastenbury is the southern boundaries of the hills, almost encompassed by rivers. Woad and apples abound in these parts. This town, 126 miles from London, was formerly famous

mous for an abbey, the richest in the world. Bruton is 114 miles from the metropolis. Castlecarey, 117 miles from London, is a place of trade in the woolen manufactures, and is of some note for its mineral waters. Wincanton is 112, and Milbournport 115 miles from London. Yeovil is 123 miles from the capital; the markets for corn, cheese, hemp, flax, linen, sail-cloth, &c. are very considerable here, and the inhabitants are reckoned very industrious. Crewkerne is 130, Chard, 141; South Petherton, 134; Ilchester, 128; Langport, 130; Somerton, 128; and Bridgwater, 142 miles from London. Bridgwater is a very considerable town and port, situated on the river Parret. Huntspill is 147; North Stowey, 150; Stokegomer, 152; Dunster, 162; and Watchet, 158 miles from London: the inhabitants fetch great quantities of



pebbles from the coast, and burn them into lime, both for building their houses and manuring their lands : on the cliffs is found abundance of alabaſter, which is ſent to Briſtol in great quantities ; and they alſo burn ſea-weed to ſupply the glaſs-houſes of that city. Minehead has the ſafeſt harbour on this ſide of the channel ; its chief trade is with Ireland, and is 166 miles, and Porlock, 172 from London. Dulverton is a pretty town ; in the neighbourhood are lead mines, the ore of which is reckoned harder than that of the Mendip-hills ; the diſtance from London is 169 miles. Wivelſcomb is 158, and Taunton, 146 miles from the metropolis. This is a place of conſiderable trade, with a large manufacture of ſerge, du-roys, ſagathees, ſhalloons, and other articles of the woolen branch. About thirty miles round the town is a large, rich, fruitful tract of land, called  
Taunton

Taunton Dean, which is very fertile. Wellington is 152; Ilminster, 143; and North Curry, 138 miles from London.—The principal rivers of this county are the Avon, the Brent, and the Parret.

## DEVONSHIRE.

We enter this county from Wellington, and come to Columpton, where there is a considerable woollen manufacture, 164 miles from London. Bradninch is 167 from the metropolis; and Honiton, 157; the inhabitants send great quantities of lace (the chief article of trade here) to London. Axminster has a small trade in druggets, kerfies, and other articles of the woollen manufactures, and is 145 miles; Autry, 150; Culliton, 153; and Sidmouth, 161 miles from London. Sidmouth is one of the principal fishing towns in the

county. Topsham is 171 miles from the metropolis. Exeter is a bishop's see; the inhabitants carry on a great trade, having large manufactures of woollen cloth, serge, &c. and all along the water side, are a great number of tenters to stretch the cloth on. The weekly markets are considerable; and the yearly returns for the manufactures are computed at six hundred thousand pounds: here is also a manufacture of porcelain; as you've not yet seen any of the kind, I will give you some account of it. The principal ingredients that porcelain is made with, are called kaolin, and petunee; the first is a kind of a fossil, and the other is a coarse kind of flint, which are reduced to a powder, and made into a paste with water. Oil of lime is another ingredient, and that which gives the porcelain all its lustre. The hardest part of the work is that of kneading the two earths together, which is done till they

they are well mixed, and grown hard, by the workmen's trampling them continually under their feet. The porcelain is formed either in a mould, or on the wheel. After it is painted, polished, and varnished, it is carried to the oven: of those there are two kinds; the large one, for such pieces as are only brought to the fire once, and the small ones for such as require double baking. The time that it remains in the furnace depends on the fineness of the ware: it is heated during a day and night, and if the pieces are small that are in it, such as cups, &c. they are taken out twelve or fifteen hours after the fire is extinct; but if large pieces, they remain two or three days after.

On leaving Exeter, we come to Moreton, 184 miles from London; then to Chudleigh, 183 miles; Newton-Bushel, 188; and Ashberton, 190 miles  
from



from the metropolis. Here is a manufacture of serge, and in the neighbourhood are mines of tin and copper. From this town there is a road to Brent, 199 miles from the metropolis; and from thence to Totness, 196; and then to Dartmouth, 204 miles from London. This is a place of great trade, and has a good harbour; the pilchard fishery is very considerable here. The next town on the coast is Dodbrook, 220 miles from London. Kingsbridge, though but a small town, has a considerable market for fat and lean cattle. This town is 219 miles, and Modbury, famed for its fine ale, and serge making, is 208 miles from the metropolis; and Plymton is at the same distance.

Plymouth, 215 miles from London, is one of the chief magazines for sea stores of every kind in the kingdom, and is a very strong fortification; the  
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inhabitants have a very good trade. To the north of Plymouth is a mountainous tract of land, 20 miles long and 14 broad, called Dartmoor-Forest, where near an hundred thousand sheep feed all the summer, besides other cattle. Bereaiston is 212 miles from London. Tavistock, 203; Chegford, 187; Lyfton, 210; Okehampton, 193; Hatherly, 201; Houlsworth, 215; and Sheepwash, 208 miles from the metropolis: as there is nothing in those towns interesting to our plan, we will proceed on to Torrington, a rich and populous place, the inhabitants of which carry on considerable trade with Ireland; the distance from London is 195 miles. Biddiford is also a place of great trade; with Ireland, they traffic for wool; with Newfoundland for cod; and with Liverpool and Warrington, for rock salt; which the inhabitants dissolve with seawater into brine, and then boil into a  
a new

a new salt, called salt upon salt; it is used in curing herrings, that are taken here in great quantities: the distance from London is 197 miles. Barnstable's chief manufactures are those of woollen stuffs; some porter is also brewed here: it is 193 miles from the metropolis. Ilfracomb is 187; the herring fishery is very considerable there. At Comb Martin the land about the town is noted for yielding the best hemp in the county; it is 179 miles from London. South-Molton, 180 miles from the metropolis, has a manufacture of serge, shalloons, &c. Bampton, on the borders of Somersetshire is 167; Chimleigh, 193; and Tiverton, 167 miles from London. At Tiverton there is a great manufacture. Crediton has also a great trade in the serge branch, is a populous town, 180 miles; and Bow, 189 miles from the metropolis.

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In this county are large quarries of one for building, and slate for covering houses.—The principal rivers in Devonshire are the Tamer, the Eax, the Taw, the Lad, the Oak, the Dart, the Tourige, and the Tame.

From Bow we shall cross the county to the north-west point, and come to Hartland, a sea-port town, 219 miles from London; the inhabitants carry on a considerable trade in the herring fishery, and it is thought that the cod taken here is preferable to any other. From this town we shall enter.

## CORNWALL.

THE first place we come to is Stratton, noted for the garden grounds that surround it; distant from London 221 miles. From Stratton we shall proceed along the coast to Boseny, 133 miles from



from the metropolis ; then to Carnelford, where a great quantity of yarn is spun, both in the town and its neighbourhood : it is 250 miles from the capital. Padstow is 244 ; about the month of October here is a herring fishery ; the haven is a very good one : proceeding up the river is Wardbridge, at the distance of 242 miles from London. 249 miles from the metropolis is St Colomb, near to which manganese has been discovered : you remember that it is used to bring glass to its proper lustre.

*Maria*—You have forgot, Madam, the promise you made us ; that, when we should get to this county, you would give us an account of the mines ; how the metals are found ; and the manner in which they are worked, till made fit for sale.

*Aunt*

*Aunt*—I am very glad to find that you do not forget our little agreements: the reason of my deferring to give you an account of the mines was, that as this county has been long famous for them, even in the time of the Phenicians, they have been more attended to than most others, and more experiments have been made there, as to the manner in which the metal is found, and the most advantageous way of turning it to the greatest profit in working than any where else; therefore I thought it best not to say any thing about it, till we should come to the spot, from where the most satisfactory accounts had been obtained. On this coast is the highest hill in all the county, called St. Agnes, which is above 480 feet above the level of the sea: upon digging through the hill, to find lead, the earth, or strata, was laid five feet deep from the surface, with vegetable soil; after that, a fine white

white tobacco-pipe clay was found to lay six feet deep, after a bed of sand like that of the shore, six feet deep, then a bed round of smooth pebble stones other four feet deep; and lastly the firm rock in which the tin loades were; so that before the ore could be got at, the miners were obliged to dig to the depth of one and twenty feet. The metal runs in veins or fissures, and their contents are called loades; the larger fissures have many small branches like the boughs of a tree, that terminate in threads, it is sometimes collected and fixed; sometimes loose and detached; and at other times in a sandy pulverised state: but it is most frequently found in a loade. When the loade is found, the miners must first dispose of the barren rock and rubble, then discharge the water that abounds more or less in every load; and lastly raise the tin. The arts necessary for mining are many, and almost

most every mine requires a peculiar management : various engines are used but the most powerful is the fire engine, for draining water. When the ore is obtained, it is carried to the stamping mill ; unless it be full of clammy slime, then it is thrown into a pit, called the buddle ; from thence it is shovelled forward into a sloping channel of timber, (called the pass), from whence it slides, by its own weight, and the assistance of a small rill of water, into a box. It is then carried in sacks upon horses to the melting-house, under the name of black tin, where it is tried, and melted in a reverbatory furnace ; when melted, it is conveyed into square moulds of stone, containing about 320 pounds of metal ; the block as it is then called, is carried to the coinage town, of which there are five in the county, where the officers assay it, by taking off a piece from the underpart of the block, partly by cutting,



ting, and partly by breaking: if they find it well purified, they stamp the face of the block with the impress of the seal of the dutchy, which authorises the person to whom it belongs to sell it. This stamping of the tin with a hammer, is called coinage; and every hundred of white tin so coined, pays to the Duke of Cornwall, (who is the Prince of Wales,) four shillings before it can be disposed off.

The different uses tin is applied to, are tinning or lining all copper and brass utensils, and looking-glasses; it is employed in making bell-metal, hard-ware, and in soldering pipe and sheet lead; but its most important use, is in making latine and pewter. Latine is a composition of tin and iron; the iron, in bars, is covered over with tin, and flattened in mills to the proper thinness: its use is to make canisters, and block-tin ware.

Tin

Tin is converted into pewter, by mixing at the rate of an hundred weight of tin with fifteen pounds of lead, and six pounds of brass : it is used in making dishes, plates, &c.

We shall now proceed on our tour from St. Collomb, to St. Michael, chiefly inhabited by miners, at the distance of 247 miles from London ; and from thence, to Truro, one of the coinage towns, and a place of great trade, 274 miles from the capital. Redruth, 261 miles from London, is seated in the midst of the mines, and rendered populous by the resort of the people employed about them. St. Ives is a sea-port town, with a considerable trade in iron, Bristol ware, cornish flates, Welch coal and the pilchard fishery ; and is 276 miles from London. Merazion is 285 miles from London. Helfstone, another coinage town, is 274 miles

miles from the metropolis. Falmouth is the most considerable sea-port in the county, and the place from whence the packets from America and the West-Indies both set sail and arrive : it has a very great trade in the pilchard fishery, and is distant from London 265 miles. Three miles from Falmouth, and 262 from the capital is Penryn, where a very great trade is carried on in catching, curing, and exporting pilchards : here is also a manufacture of serge. St. Maws, principally inhabited by fishermen, is 266, and Tregony, 255 miles from London : here is a coarse serge manufacture, but of no great value. Grampound, 244 miles from London, is a very mean place. Lofturthiel is a cornage town ; it has but a small trade, chiefly in woollen manufactures, and is 230 miles from London. Bodmin is 232 ; its principal manufacture is yarn. West-Looe is at the same distance from  
London

London, and is separated from East-Looe by a stone bridge of 15 arches, over the river Looe. Fowey has a good harbour for shipping, 240 miles from the metropolis: the town has a considerable trade in the pilchard fishery. Leskard is one of the coinage towns, the inhabitants of which carry on a considerable trade in tanned leather, boots, and shoes: great quantities of yarn is also spun here for the Devonshire clothiers; the distance from London is 221 miles. St. Germain is 224 miles, and Saltash 220 from the metropolis. The commerce of this place consists in malt and beer. Killington has a small trade in the woollen manufactures, 215 miles from London. Launceston is the county town, 214 miles from London; and Newport is 215.

Between Leskard and the Tamar are quarries of slate which supply the neighbourhood of Plymouth with covering

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for



for their houses ; but the best covering slate in all England is at Denyball : the whole quarry is about three hundred yards long, and a hundred broad, where the workmen are obliged to dig to a great depth before they arrive at the best slate. When the bottom stone is found, it is of so close a texture, that it will found, when struck, like a piece of metal : the pieces are sometimes large enough for tables and grave-stones.

The principal rivers of this county are the Tamar, the Looe, the Seaton, the Fovey, the Tal, the Heyl, and the Alan. From Newport, we must proceed up the river Tamar, to Hardland in Devonshire ; and from thence up the Bristol channel, on the coast of Devonshire, and Somersetshire, and enter

### GLOUCESTERSHIRE.

AT the mouth of the river Avon, about 3 miles from Bristol, are copper works,

works, where all the different process of melting the ore and making it into different forms are going through; the copper is also converted into brass, by means of lapis caliminaris. The liquid ore is poured out of the furnace into clay moulds. When it is intended to be made into pins, it is melted several times, and poured into a flat stone mould, to make it into thin plates, about four feet long and three broad; these plates are then cut into seventeen strips, and these again, with particular machines, are cut into many more thin ones, and drawn out to the length of seventeen feet; and then drawn again into wires, and done up in bunches, each worth forty shilings: about a hundred of these bunches are made here every week, and each of them converted into a hundred thousand pins, into which the wires are cut. Here are a great number

of girls employed in pointing and heading the pins, which they do with great dexterity, by means of a little machine that is worked with their feet. The heads are spun with a wheel, and separated from one another, by a person with another little engine, like a pair of sheers, so that from the drawing of the wire, till the pin is finished, and stuck in the paper, it goes through the hands of no less than six different people. All the machines and wheels of these works are set in motion by water; for raising which there is a prodigious fire engine, said to raise 3000 hogheads every minute. A great number of aukward pans and dishes are made here of brass, for the negroes, on the coast of Guinea. The first town we come to, on leaving those works, is Marshfield, 104 miles from London, whose inhabitants have a great trade in making malt. Sodbury, 112 miles from the metropolis, is

is esteemed the greatest market for cheese in England, except Atherston in Warwickshire. Wickware is 113 miles from London. Thornbury is 121, and Wotton 107 miles from the metropolis. Wotton has been long in repute as a clothing town. Dursley has a manufacture of woollen cloth, and is at the same distance from London. Barkley is 112 miles from it. Tetbury is 99, and has very considerable markets for yarn and wool. Hampton is at the same distance from London as Tetbury. Stroud is on a river of the same name, on the banks of which are several fulling mills; and is a great clothing town, 101 miles from London. Panswick has a manufacture of broad cloth, and is at the same distance from London.

Cirencester is one of the greatest markets in the kingdom for wool, and woollen manufactures, and is 88 miles

G 3 from



from London. Lechlade is 77, and Fairford is 80. The church in this town is held in high estimation by the curious, having twenty-eight windows of painted glass, representing some of the principal events of the old and new testament. Northlech is 89; Morton, 83; Campden, 87; Winchcomb, 93; and Tewksbury, 108 miles from London: here is a manufacture of knit cottons. Cheltenham is in high repute for its mineral spring; the inhabitants carry on a considerable trade in malt, it is situated 100 miles from London. Gloucester is the county town and a city; and its situation on the Severn makes it a place of good trade. Here are several glass houses; but one of its chief manufactures is that of pin making, that employs a great number of hands, many of them women and children: it is situated at the distance of 103 miles from London. Newent is 114  
from

from it. Here is a large forest, twenty miles long, and ten broad, called the Forest of Dean; it abounds in iron mines; and there are in it several furnaces for melting the ore, and forges for beating the iron into flats. The town of Great Dean is in the forest, at the distance of 112 miles from London; its principal manufacture is that of pins; the town is surrounded with hills, abounding with iron ore. Newnham is in the forest, 113 miles; and Colford is 120 from London.

The principal rivers of this county are the Severn, the Wye, the Stroud, and two Avons. From Colford there is a road into

### MONMOUTHSHIRE.

GOING south of this county, the first town we come to is Chepstow,

G 4

132 miles

132 miles from London. Newport is 152; Caerleon 148, and Pontypool 146 miles from the metropolis. This town has given name to a kind of japan ware; the inhabitants make mugs, boxes, waiters, and various other articles; here are also some iron mills for working the iron plates for that manufacture.

*Louisa*—You are not, I hope, going to proceed, before you tell us the manner in which those things are made; we have not had any descriptions for a long time, and I am quite tired to see so many towns that afford nothing new, nor diverting; I shall grow quite grave for want of something to amuse me.

*Aunt*—Well, my dear, I must try what can be done to keep your attention alive; I must own that for so young a lady you have been very attentive, and therefore shall do what lies in my power

power to diversify our descriptions, that you may take pleasure in them. Pontypool ware is made of tin, flattened in a mill, and then beat into whatever shape it is designed to be made; a strong size is then spread over it, and it is put in a furnace to dry: after it is taken out, it is painted with a variety of flowers, and a very thick varnish is laid over it, to prevent the painting from being erased in using. There is another kind of japan ware, made without tin; and, as you wish for a little variety, I will give you an account of the manner in which it is made: a quantity of pieces of brown paper are boiled in water, and a person keeps beating them about with a stick while boiling, till they almost become a paste; then they are taken out of the water, and pounded in a mortar, like rags in a paper-mill; then with gum arabic, a water is made strong enough to cover the paste-paper an inch



thick; these are boiled together till the paste is impregnated with the gum; then a mould is ready to give the paste the form that is designed; if a waiter is intended, the mould must be made of a hard piece of wood, and turned in shape like the back of a plate, with a hole or two in the middle, which is oiled, and set on a strong table, and the paste spread over it as even as possible, about a quarter of an inch thick; then another mould, less than the first, is oiled and set on the paste, with a great weight to press it down; this is left on four and twenty hours. The holes in the mould are for the water that is squeezed out of the paste to pass through; and the oiling is to prevent the paste from sticking; when it is dry, it is as hard as a board; then a strong size is laid on, and left to dry leisurely, after which it is painted with figures, fruits, &c. and when dry, it  
is

is varnished and set in a gentle oven; the next day in a hotter; and the third day in a very hot one, where it stands till quite cold; it is then fit for use, nor can it easily be broken.

Now, my dear Louisa, I am afraid you will not take great pleasure in the continuation of our journey, as you have expressed yourself to be already tired with it; but, my dear, as some time hence you would regret having neglected the means of improvement, I expect, from your good sense, that you will take pleasure in endeavouring to store up in your mind every information that may in time be of use to you; and which, as you advance in years, would cost you much more trouble to learn; as youth is the season wherein knowledge is acquired with the greatest facility. We shall now go on from Pontypool to Uske, 139 miles

from London. Abergavenny is 144; the inhabitants carry on a considerable trade in flannels. A hundred and twenty-eight miles from London is Monmouth, the county town, on the river Wye.

The rivers of this county are, the Severn, the Mynow, the Rumney, the Uik, and the Ebwith.

### HEREFORDSHIRE.

AT Monmouth we enter this county, and following the course of the river Wye, we come to Ross, a town noted for the goodness of its cyder. I need not tell you that cyder is the juice of apples, extracted by means of a press. Ross is 118 miles from London. Keeping the course of the Wye, we come to Hereford, the county town, and a city, 133 miles from the metropolis;  
its

its only manufacture is that of leather gloves; the skins, which are sheep, kid, and doe, used in that manufacture, are not tanned, but allumed, and for this reason that kind is generally called allum leather. Webley is 143, and Pembridge 147 miles from London; here is a manufacture of woollen cloth. Kyneton is also chiefly inhabited by clothiers, who carry on a considerable trade in narrow cloth; it is 152 miles from the capital. Lemster is a considerable town, 137 miles from London, the inhabitants of which carry on a brisk trade in the woollen manufactories, as the wool of those parts is thought remarkable fine. They have manufactures of hats, leather, and other articles; and their wheat, barley, and flax, are also reckoned the best in England.

I must



I must give you an account of the manner in which hats are made; you think you know, without my giving you any account of them; you suppose they are made of beaver skins,—that is very true, but you are ignorant of all the labour that must be undergone before they can be fit for wear; though the best are made of beaver-skins, the common ones are made of the hair or wool of divers other animals, such as hares, rabbits, &c. the long and short hair is torn from the skins with knives for that purpose; after which several sorts of beavers hair is mixed; it is then carded, and weighed into parcels according to the size and thickness of the hat intended to be made; the stuff is then laid on a hurdle (a kind of frame wove with sticks, with spaces between them) and an instrument called a bow, resembling that of a violin,

lin, is made to play on the furs, when the different sorts fly and mix together, and the dust and filth pass through the chinks. The stuff is then hardened by pressing down a strong leather upon it; this done, it is carried to the bason, a large round case of iron, placed over a furnace, where the intended hat is moulded into a form, by sprinkling it over with water, which, together with the heat of the furnace, makes it rise into a slight hairy sort of felt; the hat is next dipped into a kettle of water and grounds, kept hot for the purpose; they then proceed to work it, by rolling and unrolling it again and again, for four or five hours, dipping it from time to time, till it is brought to the size intended; it is then put on a block to form the crown, by tying a tight string round it, and then set to dry; it is afterwards singed by holding it over the blaze of a fire, made of straw

straw or shavings, then rubbed with pumice-stone, to take off the coarser knap, and rubbed again with seal-skin to lay the knap still finer; after this it is carded, to raise the fine cotton, and sent to the dyers to dye black, for they are originally white. When the dye is dry, it is stiffened with melted glue, or gum, smeared over the hat with a brush, and rubbed in with the hand; then the hat is sprinkled over with water, and laid on an iron-plate over a little fire-place, called a steaming-bason, to force the stiffening: when it is sufficiently steamed and dried, it is put on the block, brushed, ironed, well smoothed, and fitted for lining. Hats are a considerable article of trade, and are exported to Spain, Portugal, Italy, and Germany, in great quantities.

*Maria.*—You were very right, madam, to give us this account; I should  
never

never have thought it an article that required so much work, and underwent so many shapes before it was made. I am so far from being tired of the accounts that you have given us, that I am quite delighted with our imaginary journey; and perceive, since you have been so good as to describe every thing to us, that there is nothing but may be made a source of entertainment; shall we not proceed on then? there are still a great many counties to travel through.

*Aunt.*—Yes, my dear girl; and it gives me great pleasure to find you take a satisfaction in it. The next town from Lemster is Bromyard, a very small town; the whole country round it is full of orchards; it is 125 miles from London. Ledbury is 120, and is chiefly inhabited by clothiers.—The principal



principal rivers of this county are, the Wye, the Monew, and the Lug.

### WORCESTERSHIRE.

WORCESTER, the county-town and a city, 111 miles from London, is a place of good trade. Here are manufactures of capets, china, and gloves, all of them employing several thousand hands. There is a road to Tenbury, 131 miles, and Bewdley is 127 from the metropolis. This is a place of considerable commerce, by means of the Severn, that passes through the town; here is a manufacture of Monmouth-caps, that are chiefly bought up by the Dutch. Three miles from this town there is a small manufacture of hempen cloth. Kidderminster has woollen manufactures of various kinds, which employ above a thousand looms; they  
weave

weave carpets, but of a different sort from those of Wilton, being more common, and wove in the manner of cloth, without the worsted rising in a knap. The distance from London is 125 miles. Stourbridge is at the same distance; on the Stour are iron-works, and nine or ten glass-houses in the town, in which are made window-glass, drinking-glasses, and bottles; crucibles are also made here, as in the neighbourhood there is a clay, the best for that article of any in England. A crucible is a chemical vessel, made of earth, tempered and baked, so as to endure the greatest fire, and is used to melt metals, ores, &c. here is likewise a manufacture of cloth; and several coal-pits are near this town.

At Bromsgrove, 114 miles from London, are considerable manufactures, both of linen and woolen cloth. I have  
not

not yet given you a description of those manufactures, but when we come to Yorkshire, I shall be very particular in giving you an account of the woolen-cloth ones, and will now mention to you the process of the linen one, from the flax till it is fit for sale. You have seen flax grow, and know, that instead of being cut down like other grain, it is plucked out of the ground, tied in handfuls, and set up to dry, and when it is thoroughly so, bruised by handfuls on a block, whereby all the inward substance of the stem flies off in shivers, and nothing remains but the thin bark in large threads, through the whole length of the stem; it is then hung on a perpendicular board, and bruised with a wooden beetle, to shake out all the little straws. The gross parts are now separated from the stem and heckled, (that is combed,) with a sort of comb called an heckle, consisting of long iron  
pins

pins or teeth, regularly set in a piece of board; after which it is spun, either on a wheel or spindle, and reeled into skeins of thread; this done, it is sent to the weaver, and worked in a loom; the threads are interwoven with each other, some of which are extended in length, and called the warp; and others, drawn across, are called the woof. After the cloth is wove it must be whitened, (for it still retains the colour of the flax) and that is called bleaching, which is done by first folding and steeping the cloth in a large wooden vessel, into which is thrown a quantity of luke-warm water; it remains thus, pressed down, two days, which takes off all the dirt the cloth had contracted in weaving. The second operation is bucking, or the application of salt: a copper is filled three-fourths full of water, and when it begins to boil, they put a proportionable



able quantity of blue, pearl ashes, marcoft, and mufcovy, or blank ashes, all pounded together, and boiled for a quarter of an hour; it is used when fettled; the cloth is then carried into the fields, and watered during several days, and then bucked again; this alternate bucking and watering is repeated from ten to sixteen times; after that the cloth is scoured, which is done by putting it into as much butter, or four milk, as will wet it: it is then pressed down by men bare-footed. The fifth operation is washing it with soap and water; and when starched and blued it is fit for sale. The whole time taken up in bleaching is three or four months; though it is said, that a method has been discovered of doing it in three or four hours; but this is kept a secret, and thought too expensive for practice.

Dudley

Dudley is 120 miles from London; the inhabitants have a great manufacture of nails, and other iron ware. Droitwich is noted for its fine white salt, of which vast quantities are made there, and is a considerable article of trade; the distance from the metropolis 118 miles. Upton is 101 miles; and Pershore, 103; here is a manufacture of stockings. Evesham has a very considerable manufacture of worsted stockings, 95 miles from London; and Ship-ton 83.

In this county are many hop grounds; and brine pits: it is said that the tax paid to the crown yearly for the salt, amounts to 50000 pounds.—The principal rivers are the Severn, the Teme, the Avon, and the Stour. From Ship-ton we shall enter

WAR-

## WARWICKSHIRE

AND proceeding to the north-west, we come to Stratford on Avon, whose chief trade is in corn and malt, 94 miles from London. Bitford is 101; Alcester, 102; and Henley is at the same distance from the metropolis. Warwick is the county town, 93 miles from London; the chief trade of the inhabitants is in malt. Colehill is 103 miles.

Birmingham, 110 miles from London, is one of the most capital towns in England for trade, and its manufactures are famous all over Europe for all sorts of steel and iron ware, such as swords, guns, buckles; buttons, snuff-boxes, and a variety of other articles both for use and ornament, which are exported all over the world. One of the manufactures, called Soho, may be com-

compared to a town both for the extensiveness of the buildings, and the number of hands that are employed in it. One of the chief reasons of this town being in so flourishing a condition is owing to its neighbourhood to the coal and iron mines, which are very numerous in these parts, and the quantity of coals consumed in the manufactures is almost incredible; were they to be fetched from any distance, the expence of carriage would be a crush to the trade, as it would enhance the price of the coals, and consequently that of all the articles made.

*Maria*—I think this the properest place to give us a description of the coal mines, as they are so plentiful in these parts; and it will be acquitting the promise you made us, to describe the manner the mines are worked; therefore be so good as not to deny us.

H

*Aunt*



*Aunt*—That I never will do in any thing that can contribute to your information. I proposed to defer it till we should come to the northern counties, which supply London with all the coals that are consumed there ; but since you are so desirous that I should give you the description here, I shall certainly comply with your wish.

The first thing done, when a place is found to contain coals, is to examine at what depth they lay ; also the thickness, hardness, and extent of the bed, or strata. This is done by boring ; and the instruments used for that purpose are rods, made of iron, from three to four feet long, and about an inch and a half square in thickness, with skrews at each end, that serve to skrew on other rods : a chissel is skrewed on at the lower end of the rods, and a piece of timber is put through an eye at the upper

per end: the work is done, by lifting these rods a little, and letting them fall again, at the same time turning them round a little; by the continuance of this motion, a round hole is worn thro' the hardest strata. When the chissel is blunt it is taken out, and a scooped instrument, called a wimble, put on in its stead; by this the dust, or pulverised matter, worn off the stratum in the last operation, is brought up; whereby the borers know exactly the nature of the mine they are boring in. They then make an engine pit to draw the water, and drive the mine, by working away the coals, which they do with great art, as if they were building a palace under ground. They divide the strata into rooms, and work part away, leaving a large proportion, like pillars, to support the roof of the mine; to the furthest parts of which air is conveyed, by means of air pumps. The manner of bringing

the coals from the rooms, is by horses : when the descent into the mines is moderate, they draw the coals out in a tub, or basket, placed upon a sledge ; a horse will bring out in this manner from four to eight hundred weight of coals at a time. When the mine cannot admit a horse, the coals are drawn up by men, and are then fixed on a small four-wheeled carriage ; but when the mine has a very steep descent, they cannot be brought up in this manner neither, but women carry them up in a kind of basket on their backs, about an hundred weight at once. When they are brought to the entrance, or audit of the mine, the baskets are hooked to a chain, and drawn up to the surface of the ground, by a rope, and a machine, called a gin, wrought by horses. Some gins are wrought by water, others by the vibrating lever of a fire engine ; but those wrought by horses, are in most general use,

use, especially in this county. When they are got up to the surface, they are drawn at a small distance from the pit, and laid in separate heaps; the largest coals in one heap, the smaller pieces, called chews, in another, and the culm, or pan coal, in a separate place.

You see, my dear girls, that those towns, near coal-pits, may be supplied at a small expence; and that all those manufactories, which require a great consumption of fuel, must be situated in places where that article may be obtained at a cheap rate.

We shall now proceed from Birmingham to Sutton Cofield, 111 miles from London. Pollsworth is 103, and Atherston, at the same distance from the metropolis, has the greatest fair for cheese in all England. Nuneaton is 100 miles from London: here is a manufacture of



cloth and ribbons. Coventry is a bishop's see, 90 miles from London, whose chief manufacture is that of ribbons; though here is also one of woollen cloth and tammies. Ribbons are wrought on a loom; those that are striped, or figured, are done from a design, drawn on paper, with lines and squares, representing the threads of the warp and woof; and little points or dots placed to mark the threads of the warp that are to be raised; the space that are left blank, denote the threads that are to keep their situation; as to the rest, the weaving is the same as that of other silks. Rugby is 85 miles from the metropolis; Southam, 83; and Kineton, 88. There are in this county quarries of stone for building.

The principal rivers are the Avon, the Leam, the Tame, the Anker, the Arrow,

Arrow, the Alne, the Swift, and the Stour. From Kington we shall enter

OXFORDSHIRE,

FROM whence a road goes to Banbury, whose situation, in the midst of rich meadows, is delightful, and a source of wealth to the people, as they are noted for making excellent cheese; it is 74 miles from London. Dodding-ton is 70; Chipping Norton, <sup>71</sup>71: Charlbury, 69; and Bicester, noted for excellent malt liquor, 56 miles from the metropolis. Woodstock is pleasantly situated, 63 miles from the metropolis: the inhabitants carry on a manufacture of wash-leather gloves, which are esteemed all over England: they have also very flourishing manufactories of steel chains for watches, and other articles of ornament in polished steel. Near the town of Burford

are frequent horse races; and most of its trade is in saddles thought to be made better here than elsewhere; the distance from London is 79 miles. Witney is 68 miles from London. This town is famed for its manufactures of blankets, chiefly confined to this place, where they are advanced to that height that no other manufactures come near to them. A great part of their excellency is attributed to the waters of the river Windrush, where they are scoured, in <sup>water</sup> mills erected for that purpose; the water is said to possess a particular quality, very fit for that use; though some people think the beauty of them is owing to a loose way of spinning, practised hereabouts. Blankets are made of felt wool, that is wool from off sheep-skins, divided into several sorts: of the head and bay wool blankets are made, of ten, eleven, and twelve quarters broad; of the ordinary and middle sort, the width  
is

is seven and eight quarters; those of six quarters broad, commonly called cuts, are of the best tail wool, and serve for seamen's hammocks: here are also other woollen stuffs made, such as kerfies, coarse bear skins, &c. Bampton is 70 miles from London. Oxford, 57 miles from the capital, is the county town, and a bishop's see, and is famous all over Europe, as being the seat of learning; its University, containing twenty colleges, and justly the admiration of strangers, takes up two-thirds of the town, which is situated in a beautiful plain, on the banks of the Thames: the air is reckoned remarkably healthful. The names of the colleges are 1st, Magdalen College; 2nd, University College; 3rd, Queen's College; 4th, All Souls College; 5th, Brazen College; 6th, Hertford College; 7th, New College; 8th, Wadham College; 9th, Trinity College; 10th, Baliol College; 11th, H 5 St. John's



St. John's College ; 12th, Worcester College ; 13th, Exeter College ; 14th, Jesus College ; 15th, Lincoln College ; 16th, Oriel College ; 17th, Corpus Christi College ; 18th, Merton College ; 19th, Christ Church College ; 20th, Pembroke College. Besides these colleges, there are five halls : 1st, St. Alban's Hall ; 2nd, St. Edmund's Hall ; 3rd, St. Mary's Hall ; 4th, New Inn Hall ; 5th, Magdalen Hall.—Tame is 45 ; Watlington, 46 ; and Henley, 35 miles from London. The principal part of the inhabitants of Henley are meal-men, maltsters, and barge-men.

A sort of grey marble is found in this county, of which several chimney-pieces have been made.—The principal rivers are the Thames, (or Isis,) the Tame, the Charwell, the Evenlode, and the Windrush.—Crossing the Thames, we enter

BERK-

## BERKSHIRE,

AT Reading, 39 miles from London, one of the most considerable corn markets in Great Britain and Ireland; and great quantities of meal, malt, and timber, are sent in barges by the river Thames to London. Here are manufactures of carpets, rugs, French and Dutch tapes, and pins, which make this a place of some trade: it is the county town. East Ilsey, 54 miles from London, is the greatest market for sheep in the whole kingdom. Wallingford is 46, and Abingdon, 56 miles from London: the inhabitants make great quantities of malt. Faringdon is 68 miles from London; and Wantage, 59. This town is memorable for being the birth-place of King Alfred, the greatest monarch that ever sat on the English throne: he was born in the

H 6

year

year 849. Lamborn is 68 miles from London. Hungerford, 65 miles from the metropolis, boasts of the best trouts, eels, and cray fish in the kingdom. Newbury, 56 miles from London, is a considerable market for corn. On each side of the river Kennet, near this town, is a stratum of peat, which extends many miles in length, and about half a mile in breadth; the depth below the surface of the ground is from one to eight feet: it is used for fuel by the common people. Peat is a composition of the roots, leaves, and branches of trees; also, grass, straw, plants, and weeds, which, by lying long in water, are formed into a mass, so soft as to be cut through with a spade, and is of a blackish brown colour.

Oakingham is 33 miles from London; and Windsor, 24, is the residence of the Royal Family, in the summer months;

months; the Castle is very magnificent, and the finest of all the royal palaces in England. Maidenhead is 26 miles from London.

In this county is a place, called the Vale of the White Horse, in which is a large stone horse, thought to be erected by King Alfred's order, in memory of a great battle, fought on that spot.—The rivers of this county are the Thames, the Kennet, the Loddon, the Ocke, and the Lambourn.

At Maidenhead there is a bridge, the barge pier of which is the boundary between this county and that of

### BUCKINGHAMSHIRE.

WE shall enter this county by Maidenhead bridge, from whence there is a road to Colnbrook, 19 miles from London.



don. Eaton is only separated from Windsor by a wooden bridge. Here is a school that serves as a nursery to the Universities, and renders the town a place of note. Beaconsfield is 27, and Great Marlow, 31 miles from London; from whence great quantities of meal and malt are conveyed to the metropolis in barges, by the river Thames. A great deal of bone lace is made here and in the neighbourhood; and on the river Loddon, near this town, are several paper and oil mills. High Wickham is 33; Amersham, 29; Chesham, 32; Windover, 39; Aylesbury, 44; Ivinghoe, 35; and Winflow, 45 miles from London. I mention all these towns together, as they contain nothing that comes under our plan, as to trade.

Buckingham is the county town, 60 miles from London; the river Ouze surrounds it on all sides, except the north,

north, and several mills are turned by it. Two miles to the north of this town is Stow, the Seat of Earl Temple, the gardens of which are reckoned the most elegant in England. Fenny Stratford is 49, and Stony Stratford, 53 miles from London; the chief manufacture is that of bone lace. Newport Pagnel is 51, and Oulney, 54 miles from London. the trade of both these towns is in bone lace.—The principal rivers of this county are the Thames, the Coln, the Ouze, and the Tame. Crossing the Ouze, to the north of Oulney, we enter

## BEDFORDSHIRE,

AND, going north, the first town we come to is Harrold, 59 miles from the metropolis. Keeping the course of the Ouze, we come to Bedford, the county-town, 50 miles from London. Here is a very fine bowling-green, shewn to strangers as a great curiosity. Ampt-  
hill

hill is 44, and Wooburn, 42 miles from London. At this place is a manufacture of jockey caps; and about a mile and a half from the town are several pits of fullers earth: it is said, that there is an earth hereabouts that has the property of turning wood into stone. Woad is also found in these parts. Leighton is 41; Tuddington, 39; and Dunstable, 33 miles from London. The inhabitants of Dunstable have no water, but what is contained in a pond in the street, or in deep wells which they have sunk, from whence it is drawn up by machines. This inconvenience is owing to the soil of the town, and adjacent country, being chalk; this track of chalk crosses the kingdom in some parts. Here is a manufacture of various articles, and toys made of straw by women: this town has also long been famous for the larks that are caught in its neighbourhood.

To

To have some account of that little bird may not, perhaps, be unpleasant to you. It is called the common sky-lark, which sings as it flies, and raises its notes as it ascends, and lowers them, till they quite die away, as it descends: it begins its song before the earliest dawn, and continues its harmony for several months, beginning early in the spring: in winter they assemble in vast flocks, grow very fat, and are taken in great numbers for the table. They build their nests on the ground, beneath some clod, forming it of hay, dry fibres, &c. they lay four or five eggs. The season for taking them begins about the 14th of September, and ends the 25th of February; during which time, about four thousand dozens are caught, and supply the markets of London.

Luton has a considerable market for corn and poultry; it is 31 miles from  
the



the metropolis. Selfoe is 41 ; Shelford, 43 ; Biggleswade, where is a very great horse fair, 45 ; and Potton, 48 miles from London.—The chief rivers of this county are the Ouse and the Ivel. From Potton we enter

### HUNTINGDONSHIRE,

AND the first town we come to is St. Neot's, 57 miles from London. Two miles from this town is a village, called Hail Weston, in which are two mineral springs, one good for diseases of the skin, and the other for sore eyes. Huntingdon is 58 miles from the metropolis : the meadows on the banks of the river Ouse, are remarkable for their beauty, and are covered with innumerable herds of cattle, and flocks of sheep. A bridge parts this town from Godmanchester, a place which has been long noted for the inhabitants' skill

skill in husbandry. St. Ives is 63; Erith, 65; Ramsey, 69; Yaxley, 77; and Kimbolton, 63 miles from London.—The chief rivers of this county are the Ouse and the Nen. From Kimbolton there is a road into

### NORTHAMPTONSHIRE,

AND, going to the north, we come to Peterborough, 80 miles from London, the least city, and poorest bishopric in England. The trade of this city is very inconsiderable, and consists chiefly in articles of the woollen manufactures, that the poor are employed in spinning; they likewise knit stockings, and have also some trade in corn, coals, and malt. Oundle is 77; Thrapston, 77; Higham Ferrers, 70; and Wel-  
 lingborough, 69 miles from London. This is a large populous town, and has a considerable trade in corn; also, a  
 large

large manufacture of bone lace, and some boots and shoes.

Northampton, the county-town, 66 miles from London, is esteemed the most considerable horse market in the kingdom; there are frequent horse races in the neighbourhood; and about the town are a great number of cherry gardens. The principal manufacture is that of boots and shoes, which are made in great quantities for exportation. Towcester is 61 miles from the metropolis; the chief employment of the inhabitants is making bone lace. Brackley is 56 miles; Daventry, 73; and Kettering, 73 miles from London. Here are considerable manufactures of ferges, tammies, and shalloons; and the town has a good trade in several articles, with which it supplies great part of the county. Daventry has a manufacture of whips. Rockingham gives

gives name to a large forest, where are fed innumerable herds of cattle; and great quantities of charcoal are made from the small branches of the trees. The town is 85 miles from London.

In this county slate is dug up for covering houses; the rag-stone found here is so fine, that it is little inferior to marble; it is dug out of Welden quarry. There is also some salt-petre found in this county, which is of very great use in the manufactures, especially in making white glass; it is also of the same use as common salt in preserving food, and is the principal ingredient in making gun-powder.—The principal rivers are, the Nen, the Welland, the Ouse, the Leam, and the Charwell. From Rockingham forest there is a road into

RUT-



## RUTLANDSHIRE,

THE smallest county in England ; the road leads to Uppingham, situated at the distance of 87 miles from London. Okeham, the county town, is 96 miles from the metropolis. There are only these two market towns in the county, and no manufactures worth notice.—The rivers are the Welland and the Gwash. From Okeham there is a road into

## LEICESTERSHIRE,

TO Melton Mowbray, 107 miles from London. Loughborough is 109 ; Ashby-de-la-Zouch, 115 ; Mountfrel, 105 ; Bosworth, 106 ; Hinkley, 104 ; and Lutterworth, 88 miles from the metropolis. In the neighbourhood of this town is a petrifying spring, that

is said, in a very little time, to convert wood and several other substances into stone. Harborough is 84; Hallaton, 91; and Billesdon, 98 miles from the capital.

Leicester, 100 miles from London, is the county town. Here is a large manufacture of wove stockings; and it is said, that in a year sixty thousand pounds are returned in that article. Waltham-on-the-Would, is 112 miles from the metropolis.

The principal business of the county consists in agriculture; it is well provided with corn, cattle, poultry, and fish; and also with good horses for the collar.—The principal rivers are the Stour, the Avon, the Swift, the Wel-land, and the Wreke.

LIN-

## LINCOLNSHIRE.

WE enter this county at Stamford, a very pretty town; the chief trade of it consists in free-stone, obtained from a neighbouring quarry, sea-coal, and malt: it is 83 miles from London. Market Deping is 87, and Bourn, 97 miles from the metropolis. The principal employment of the inhabitants is tanning leather.

*Maria*—It is so long, my dear aunt, since we met with any thing to awaken our curiosity, that I cannot let you proceed without interrupting you, to request you will give us some of the particulars concerning this trade.

*Aunt*—You know tanned leather is the hide of an ox; when the tanner gets it from the slaughter-house, he  
begins

begins with taking off the horns, ears, and tail ; the hide is then thrown into running water for about thirty hours, to wash off all the blood and filth that may be about it ; it is then put into a lime-pit, from whence it is alternately put in and taken out once or twice a week, during the space of a year, or eighteen months, according to the strength of the leather. This strips the skin of the hair ; it is then rubbed briskly on a leg, (a kind of block,) with a whetstone, to take off any remains of filth, and then put into tan, a pit filled with the bark of trees, stripped from the timber in summer, and dried in the sun ; it is then chopped and ground in a tanning mill to a coarse powder ; the leather is put into the pit, with a sufficient quantity of water, and remains there till it is sufficiently barked, which is known by cutting a piece of the hide, to see if the bark has penetrated quite

I

through



through. When it is taken out of the pit, it is hung in the air to dry ; then the dresser shaves off the uneven, rough inside, and prepares it with oil for the shoe-makers use. Sole-leather requires but little dressing, in comparison to that of the top. With different hides, such as calves, horses, &c. some difference is observed ; they are generally left but four months in the lime-pit, and some preparation is undergone before they are put into the tan-pit.

Now we shall proceed on our tour from Bourn : there is a road that goes due north through the county ; we shall follow the track to Fokingham, 104 ; and from thence to Sleaford, 110 miles from London. Going to the east, we get into the Fens, and come to Dunnington, whose markets are famous for the great quantities of hemp, and hemp-feed sold in them ; it is 116 miles  
from

from London. Spalding is 103; here are several barges employed in carrying coals and corn. Crowland is 93 miles from the metropolis: there are very large decoys at this town; in which sometimes three thousand ducks are taken at once; and it is said, that the decoys of these fens sometimes let for four or five hundred pounds a year.

These fens are very fertile in producing abundance of cole-feed, and the richest pastures; for which reason the oxen and sheep are of an extraordinary size: they abound in game of every kind, and so great is the plenty and variety of wild fowl, that these fens have been called the aviary of England: two fowls are said to be found no-where else in the kingdom, called the doterel and the knute. The doterel is reckoned very fine eating, but is a very foolish bird; it is thought to mimic all the ac-

tions of the fowler, without any regard to its own safety; when it perceives the fowler stretching out his arm, the bird will do so with its wing, and will not desist from its imitations till caught in the net that has been spread for it. Tame geese are also kept in great multitudes in these fens, and are a source of wealth to the proprietors of them, as a single person, at the beginning of the season with a thousand geese, at the end of it will be possessed of eight thousand, as every goose will rear seven. During the breeding season, these birds are lodged in the same houses with the inhabitants, and even in their very bed-chambers; in every apartment there are three rows of coarse wicker pens, placed one above another; each bird has its separate lodge, divided from the other, which it keeps possession of during the time of sitting. A person called a gozard (that is a goose-herd) attends the flock,

flock, and twice a day drives the whole to water, then brings them back to their habitations, helping those that live in the upper stories to their nests, without ever misplacing a single bird. The geese are plucked five times a year: the first plucking is at Lady-Day, for feathers and quills to make pens; the same is renewed for feathers only, four times more between that and Michaelmas. The old geese submit quietly to the operation, but the young are very noisy and unruly. If the season proves cold, numbers of them die by this barbarous custom. Great numbers of geese are driven annually to London, to supply the markets, and among them are all the superannuated geese and ganders, that by a long course of plucking, prove uncommonly tough and dry. The common price of geese in some counties is regulated by that of mutton, both being the same by the pound, without



the feathers. The usual weight of a fine goose is 15 or 16 pounds, they increase it by cramming them with bean-meal and other fattening diet ; those that are destined for this surfeit, are by some nailed to the floor by the webs of the feet, which causes no pain, and is meant to prevent the least possibility of action.

Holbeck is in the fens, 115 miles from London. Boston is 119, and is a place of great trade, both foreign and inland, having a considerable harbour : many of the inhabitants apply themselves to grazing cattle, as the town is situated in the fens, the rich marsh lands feed great numbers of large sheep and oxen. The great curiosity of this town is a church, greatly admired by all travellers ; it has 365 steps, 52 windows, and 12 pillars, answering to the days, weeks, and months of the year. Between this town  
and

and Lincoln is sometimes seen the fowl called a bustard, it is found no where else in England, except on Salisbury plain, and is about the size of a common peacock, and runs at a prodigious rate, being frequently taken with greyhounds in a fair course, in the manner of hunting the hare; its flesh is well tasted. Tattershall is 133, Bullingbrook 138, Spilsby 140, Wainfleet on the coast is 134, Burgh 137, Alford 140, Horncastle 141, Stainton 129, Louth 155, Binbrook 157, and Saltfleet 164 miles from London. At Grimsby the inhabitants trade in coals and salt; the town is situated at the mouth of the Humber, 167 miles from the metropolis. Castor is 155, Gleanford-Bridge 156, and Burton 167 miles from London. Axholm is an island, about ten miles in length from north to south, and scarce five in breadth, in it are the towns of Crowle and Empworth,

the first 165, the other 160 miles from London. Kirton is 151 miles from it, and singular in having a sort of apples much esteemed, called from the name of the town Kirton-pippins. Gainfborough has a considerable trade by means of the river Trent; between this town and Lincoln, at a village named Stratton, are found the ophites or serpent-stones; it is 150 miles from London. Market-Rasen is 149. Lincoln is the county-town, and a bishop's see, on the river Witham; here are some woollen manufactures of stuffs; the distance from the metropolis is 132 miles. Grantham is 110; near Belvoir Castle astroites or star-stones are found, so called from their resemblance to a star; there is also in this county a kind of variegated marble, of a dusky green, sprinkled with spots of a light green.—The principal rivers of this county are the Trent, the Welland, the Dun, the Witham, and

and the Ankham. From Grantham, we enter

## NOTTINGHAMSHIRE,

AND the first town we come to is Newark, 124 miles from London. Crossing the Trent, we come to Tuxford, 137 miles from the metropolis. Retford, 144 miles from London, is seated among large plantations of hops, in which it carries on a considerable trade; and in barley for malting. Blyth is 148, and Workſop, whose markets are noted for plenty of liquorice and malt, is 149 miles from London. Mansfield, whose chief trade is in malt, is 136; Southwell, 140; and Bingham, 108 miles from London. Nottingham 126 miles from London, is plentifully supplied with all kinds of fish; its principal trade consists in fine wove stockings, and there are several



thousand stocking frames employed in the town and neighbourhood : here is also a great manufacture of glass and earthen ware, of which large quantities are sent to London ; the inhabitants have also a great trade in malt. I shall omit entering into any particulars concerning the earthen-ware manufacture, till we come to Staffordshire.

In this county is found a kind of pit-coal, and some lead mines ; also a stone like alabaſter, only ſofter, which, when burnt, makes a plaister like that of Paris, generally used to floor upper apartments : there are also some quarries of stone. The other productions of the county are hops, corn, cattle, abundance of fowl and fresh water fish ; as there are at least twenty rivers in the county great and small, the principal of which are the Trent, the Idle, and the

the Erwash. From this county we enter

## DERBYSHIRE,

AND going north we come to Alfreton, 136 miles from London; it contains nothing worthy of note, except that the malt liquor brewed there is superior to that of any other part of the county. Belper is 142, and Dronfield, 154 miles from London. At Chesterfield, 148 miles, are four potteries of brown ware established; also, a manufacture of cotton and worsted stockings; and near the town are large iron foundries. Tideswell is 158; Bakewell, 141; and Wirkworth, 131 miles from London. This last is the chief town of the peak, and the greatest market for lead in England: at a small distance from the town are furnaces for smelting the lead ore: you know

know the Peak is full of lead mines, which extend almost the whole breadth of the county.

*Maira*.—I have often heard speak of the wonders of the Peak, but am at a loss to know what they are: your usual readiness to oblige us leaves me no room to doubt, but that you will favour us with an account of them.

*Aunt*.—It gives me a great deal of pleasure to mention them to you; though I am not capable to enter into a minute description, there has been a great deal wrote on them; and if, when you grow up, you should be curious to know more concerning these wonders, you will find books that will inform you of every particular relating to the subject.

These

These wonders are seven in number, the first is Chatsworth-house, the seat of the Duke of Devonshire. Mam-tor is the second, a hill, under which are several lead mines; but the wonder consists in that there are perpetually shivering down from the hill, earth and great stones, in such quantities, and with so loud a noise, as to frequently frighten the neighbouring inhabitants, yet the hill is never visibly diminished. Elden-hole is the third wonder; if a stone is thrown into this hole as large as a man can lift, as soon as it strikes the rock, it will bound from side to side, till out of sight; but the sound may be heard some time after, gradually decreasing till it ends in a murmur. The fourth wonder is Buxton Wells; they are so called from the town where they rise, and the wonder consists in having another fountain, at the distance of six feet, which



which is cold when the other is hot. Tideswell, or Weeding well, is the fifth wonder, which is a spring that ebbs and flows at uncertain times, frequently twice or thrice in an hour at particular seasons, and at others, especially in dry summers, it entirely ceases. The sixth wonder is Pool's-hole, the entrance of which is almost hid among bushes and brambles, so very low, that those who go to view it are forced to creep in on their hands and knees, yet it is so high in the inside, that in many places the roof is not to be seen: it is very cold and damp, and the continual dropping of the water renders it very disagreeable: this water is of a petrifying nature, and the country people have given to the drops that are continually falling in different shapes, the names of several animals, plants, &c. Peak's-hole is the last wonder, a cavern in a rock,

so

so dark, that people are always near it with lighted candles, ready to conduct those whose curiosity may prompt them to enter the cavern.

In the Peak are two towns I have not mentioned, which are inconsiderable ; Chapel in Firth, 163 miles, and Winstrer, near some very rich mines, 148 miles from London. Ashborn is 139 miles from the metropolis : the inhabitants carry on a considerable trade in cheese. Derby, the county town, is 129 miles from London : the first machine for twisting silk was brought to England from Italy, and set up at this place ; there is a model of it kept in the tower, and there are others set up in different towns in the kingdom. Here are also manufactures of porcelain, and of silk, cotton, and worsted stockings.—The principal rivers of the county are the Dove, the  
Derwent,

Derwent, the Irwash, and the Crawl-  
low. Going south we cross the Trent,  
and enter

## STAFFORDSHIRE,

AT Burton, called Burton upon Trent, to distinguish it from other towns of the same name, 123 miles from London, a considerable town, with a good manufacture of cloth, and the ale brewed there is in repute all over England. It is said, that in this county they have a secret mode of fining ale in a very short time, thought to be done by adding allum or vinegar in the working. Ale is prepared various ways, and of various ingredients, as of wheat, rye, millet, oats, barley, the berries of the quick bean, &c.

Before we continue our notes on the towns, I must inform you, that this  
county

county is divided into moorlands and woodlands ; the moorlands are between the rivers Trent and Dove, and yield copper, lead, rance, marble, and millstones. The woodlands are the most southerly and level part of the county, and produce salt, black marble, and alabaster. Tutbury is 130; Pagets Bromley, 129; and Uttoxeter, 136 miles from London. In the neighbourhood of this town are many considerable iron works : great quantities of cheese are brought to this place, to be disposed of on a market day. Cheadle is 145, and Leek, 155 miles from London. At this place is a small manufacture of silk and twist buttons. Metal buttons are cast into ingots, and then flattened into thin plates, or leaves the thickness intended, at the flattening mill : after they are cut into small round pieces, the size of the mould they are designed to cover, each of them is reduced to the form



form of a button, by beating it successively in several cavities, or concave mould, with a convex puncheon of iron : this is called the cap of the button. The lower part is formed of another plate, much flatter, to which is foldered a small eye made of wire, whereby the button is to be fastened. Seven miles from Leek is Ecton-hill, where the Duke of Devonshire has a famous copper mine, lately said to be nearly exhausted. Betley is 157, and Newcastle, 149 miles from London : the chief manufacture of this town is hats. At Burslem, near this town, are different kinds of clay, proper for the earthen ware manufacture, for which reason manufactures have been established on the spot, and the greatest of pottery and earthen-ware in the kingdom, exporting to the value of twenty thousand pounds a year.

I promised

I promised to give you an account of the earthen-ware manufacture : different clays are used for different things ; but before any thing is begun, care is taken to cleanse the clay from all impurities ; and then worked up to the dryness or moisture proper into great lumps, according to the size of the vessel intended to be made, either for cups, plates, &c. The potter has a wheel that he turns round with his foot, while one of the lumps is upon the head of it, and as it turns round he forms the vessel with his finger and thumb. When it is finished on the wheel, he cuts it off from the remainder of the clay, and sets it aside to dry ; it is then put into a furnace to receive its first burning, and then glazed and burnt a second time ; this is the method used in making queen's ware, when it is coloured, the different colours are laid on after the burning, and  
all

all the colours used by potters, either in colouring or glazing, are made of metalics, chiefly of tin and lead, burnt and pounded in mills. Some earthen ware is made in imitation of china, neatly figured, coloured, and gilt. At Amblecot, in this county, there is a clay of a dark, bluish colour, of which is made the best pots for glass-houses of any in England; and the goodness of it has caused glass-houses to be erected near where it is dug. Stone is 140, and Eccleshall, where a great deal of pedlar's ware is made, is 143 miles from London. Stafford is the county town, 136 miles from the metropolis; the chief trade is in shoes, large quantities of which are exported. Penkridge is 128, and Rugely 126 miles from London. Rugely is a handsome town, and in the neighbourhood is a paper-mill. Litchfield is a city, 118 miles from London. Tamworth, 107 miles, is a place •

place of great trade, with manufactures of narrow cloth and other stuffs. Walfall is 116 miles from London; here are considerable manufactures of bridles, bits, stirrups, buckles, and other things of the same kind. Near the town are some iron mines, and in the iron stones is found a liquor that the miners are very fond of drinking, called mush. Not far from this place, near Wednesbury, at Darlaston, is found a blue clay, which, when separated from the gravel, is formed into oval cakes, and sold to the glovers to produce an ash colour. In these parts of the county are a great quantity of coal mines, of different sorts; one is the common pit-coal, another sort called cannel coal, which is worked into ink-stands, candlesticks, salts, standishes, and various other things. Dudley is 120; Kinver, 128; Brewood, 130; and Wolverhampton, 124 miles from London:  
the



the chief manufacture of this town is in the locksmith's branch, which they have carried to a very great perfection. At a village near this town, called Sedgeley, a very great trade is carried on in working irons, for ploughs, carts, horses shoes, fire irons, bolts and hinges for doors, bars for windows, buckles, nails, &c. and in working these articles two thousand men are constantly employed.

In this county some chrystals are found, sometimes stained with a violet colour, but most commonly without. Tobacco-pipe clay is found all over the county, the principal rivers of which are the Charnet, the Dove, the Blithe, the Line, the Tean, the Sow, the Pink, and the Manifold. From Dudley there is a road into

SHROP-

## SHROPSHIRE,

TO Bridgenorth, 138 miles from London; and going south, we come to Cleobury, 136 miles from it. Not far from this town is a hill that produces coals, with a vein of iron in the mine. Ludlow is 138 miles from London. Church Stretton has a good market for corn, 153, and Bishop's Castle, 156 miles from the metropolis. Shrewsbury is the county town, 158 miles from London; here is a great trade in Welch manufactures, and the inhabitants are noted for making excellent brawn, and cakes, named from the town. Near the town of Great Wenlock, 148 miles from London, are some quarries of lime stone. Shesnal is 137, and Wellington, whose inhabitants are chiefly employed in mining lime, coals, and iron stone, 142 miles from

from the metropolis. Newport is 140, Drayton, a small, obscure place, 154, and Wem, abounding with all sorts of grain, 166 miles from London. Oswestry is a little mean town, 171 miles from the metropolis. Ellismere is 147 miles from London. At this place is a great plenty and variety of game, especially woodcocks. At Whitchurch, great quantities of cheese, made in the county round about, are brought to market.

This county has many coal pits; also mines of copper, lead, and iron. Here are quarries of stone, some particularly of a blackish colour, that are ground to powder in horse mills, and afterwards boiled in large coppers of water till brought to the consistency of pitch: there is also produced from the same stone, by distillation, an oil, which dilutes the pitch into a kind of tar, much

much used in the caulking of ships, and sold by the name of British oil.

The principal rivers are the Severn, the Tmed, and the Colum. From Whitchurch, we enter

### CHESHIRE,

AND the first town we come to is Malpas, 157 miles from London. Chester is a city, and the county town, 185 miles from London, situated on the river Dee, by means of which it carries on a great trade with Ireland and Wales; and the river Mersey branching out in different places, and falling into the river Dee, makes several islands, and Chester is on one of them. At Chester is a manufacture of gloves. Frodsham is 182; Haulton, 185; Altringham, 184; and Knotsford, 183 miles from the metropolis. Northwich

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is





is 173; Middlewich, 167; and Namptwich, 162 miles from the metropolis. These three towns are called the salt wiches, on account of the salt springs found in this part of the county, from whence great quantities are obtained. The pits seldom exceed four yards in depth, and are never more than seven; they all lie near brooks of fresh water, and in meadow grounds, and the water at the bottom of those pits is so cold, that the briners cannot stay in them above half an hour at a time, without frequently drinking strong liquors. The water is brought from the salt springs to the watch-houses, as they are called, by troughs, and received into large casks set in the ground; then put into leads, and a fire made to keep it warm, while women, with wooden rakes, gather the salt as it settles at the bottom; after that it is put into a kind of wicker baskets, called salt barrows, made in the shape of  
of

of a sugar-loaf reversed, that the water dropping from them may leave the salt dry.

At Northwich have been discovered some large mines of rock salt, that have been wrought ever since ; the lumps of salt they produce are sent to salt works by the sea side, where they are dissolved, and afterwards, by evaporation, made into salt, fit for culinary uses. People who have seen those mines speak of them as a most superb sight. You descend to the depth of about fifty yards in a bucket, and are then suddenly struck with a view of what can be compared to nothing but a subterranean cathedral ; the roof is of arched crystal, the pillars of the same materials, and, as they are transparent, the reflections of the numerous lights required for the labourers to go on with their work, dazzle the eye beyond description, and

leave a sensation on the mind, hardly to be imagined. These mines extend under several acres of land. It is said, that the cheese made in the neighbourhood of Namptwich is inferior to none in the world. Congleton's principal manufacture is that of leather gloves; there is also a silk mill set up at this town, and ribbons are made for the Coventry manufacturers: it is 162 miles from London. Sandbach, at the same distance, has nothing to recommend it but the beauty of its situation. Macklesfield gives name to a forest, on the borders of which it stands: here are several silk mills; and the manufactures of the town are those of mohair buttons, hat-bands, twist, and thread; situated at the distance of 172 miles from London. At Stockport, 175 miles from the metropolis, is a chalybeate spring, said to be stronger than that of Tunbridge. The mosses of this county yield plenty  
of

of turf, and large fir-trees are sometimes found buried therein, which the poor split and use for candles, as they cast a good light. These mossy tracts consist of a kind of moorish, boggy earth, and are distinguished into white, grey, and black; the white mosses are compages of the leaves, seeds, flowers, stalks, roots of herbs, plants, and shrubs; the grey consists of the same substance, in a higher degree of putrefaction, is harder and more ponderous than the white; and the black is closer, and more bituminous than either. Square pieces of these mosses are cut out in the shape of bricks, which are laid in the sun to dry, and are then called turfs, and used for fuel. This town has a large share in the cotton manufactures; its former trade in checks, hats, and buttons is on the decline.



In this county are quarries, out of which mill-stones are dug, nearly equal to those of France.—The chief rivers are the Dee, the Weaver, and the Mersey. From Stockport we enter

### LANCASHIRE,

AND the first town we come to is Manchester, a place of great repute for all kinds of linen manufactures, known under the name of Manchester goods ; such as fustians, tickings, tape, filletings, cottons, velvet, muslin, &c. All the neighbouring villages are employed in these manufactures, and for three miles above the town, there are no less than sixty mills upon the river. The weavers have looms that work twenty-four laces at a time. I must give you some account of those manufactures.

Cotton

Cotton comes from the East-Indies ; the finest is from Bengal, and is the fruit of a tree, called gossypium : it is brought to England in bales, every bale containing from 300 to 320 pounds weight, and sold to the manufacturers, who get it spun, which used to be done by a wheel, like yarn ; but, as the demand for cotton goods began to increase, other inventions were thought on for expedition. A person in this county constructed a machine, whereby a great number of threads from 20 to 80 might be spun at once : this machine is called a jenny, with which a person can spin 100 English hanks a day, each hank containing 840 yards. Before it can be spun it is carded, which used formerly to be performed by a single pair of cards, but after the invention of the jenny, a more expeditious way was obliged to be thought of ; and at present, the method most

K 4 commonly

commonly practised is to use cylinder cards. The next capital improvement is due to Sir Richard Arkwright ; it is a combination of machinery, by which cotton is carded, rowed, and spun with the utmost exactness and equality ; and such a degree of perfection is attained by it, in spinning warp, as not to be equalled in any other part of the world, called a cotton-mill : the first was erected at Nottingham, and within these seven or eight years there are an hundred and forty of them in Great Britain. These mills are large buildings, containing thousands of spindles, each driven by one or more large water wheels ; some are of such extent, as to spin at the rate of a thousand yards of twist or warp yarn in a minute. Another machine is used in spinning cotton yarn for muslin, to a degree of fineness never known in this country till lately, called a mule. The first  
British

British muslin made, was in this county, about twenty-five years ago; and the quantities manufactured at present, are from fifty thousand to a million pieces in the course of a single year. Fustians are a kind of cotton stuff, that appears whaled on one side: the right sort is made of cotton, both in the warp and woof; but a great many are made, of which the warp is flax. Fustians are of several kinds; wide, narrow, fine, coarse, with shag or nap, and also without it; they are used in men's cloathing.

From Manchester there is a road to Rochdale, 195 miles from London; here are some woolen manufactures. Bury, 190 miles from London, has considerable manufactures of fustians, baize, kerfies, and half ticks. Bolton, 192 miles from the metropolis, has a mineral spring. Wigan has large manufactures of coverlets, rugs, blankets,



and all sorts of bedding; here are also iron-works, and in the town there are a great many braziers, pewterers, dyers, and weavers. Several coal-pits are near this town, and some of the species called cannel, or candle coal, which makes a much brighter fire than the other sort, and is of so firm a texture as to bear turning; when it is polished it has the appearance of black marble, and the inhabitants of the town make cups, salts, candlesticks, standishes, and several other articles of it. The distance from the metropolis is 196 miles. Leigh is 192; Newton, 189; and Warrington, 183 miles from London: here is a considerable manufacture of sail-cloth; a large house for smelting copper ore; a glass-house, for bottles and flint-glass, which is cut here in a very able manner; here is also a brewery for exportation, and a sugar-house; and many hands are employed in making pins; in the  
neigh-

neighbourhood is a fine manufacture of huckabacks.

*Louisa.*—I thought that sugar grew in the West-Indies, what do you mean then when you say that there is a sugar house here? is it a warehouse that sells it wholesale to the shops? or, is it a place where the sugar is deposited on the arrival of the ships?

*Aunt.*—It is neither: a sugar-house is a place where sugar is refined, and made into loaves after it comes to England. You know sugar is plants that grow in the West-Indies, called canes; the juice is extracted from them by two great iron rollers turned by negroes, and is received into a boiler; when it has boiled a considerable time, it is made to granulate, by mixing lime with it; it is then a powder, and put into casks, in which a hole is left to let the molasses

(the dregs of the sugar) drain from it. in this shape it is called muscovadoes, and sent to England. When it comes to the sugar-houses, it is diluted in water, and boiled several times, a quantity of lime being mixed with it at every boiling. When it is come to a proper consistence, it is put into earthen moulds, in the shape of sugar-loaves, then baked in an oven, and clayed; the manner of claying, is mixing a quantity of water with the clay, till it is of the thickness of starch; this is put on the sugar in the mould, the broad end of it standing uppermost; the water runs through the loaf, and carries with it all the impurities that were not separated from the sugar in the boiling, and the clay remains a dry substance on the top. If clay was not used in refining, the water would run too quickly through the loaf, without carrying away the impurities, and would only  
moisten

moisten the sugar; but the clay makes them fall by degrees, and answers every purpose that is wanted.

I told you there was at Warrington a brewery for exportation; but I believe you do not know how beer is made, therefore I will give you a short account of it. A quantity of water is boiled and left to cool, and then poured over a quantity of malt in the mashing-tub; after standing a quarter of an hour, more water is added to the malt, and lastly, the full quantity of water is added, in proportion as the liquor is to be strong or weak; the whole now stands two or three hours, more or less, according to the strength of the wort; it is then drawn off into a receiver, and the mashing is repeated for a second wort, in the same manner as the first; they are then mixed together, the intended quantity of hops is added, and  
the



the liquor close covered up, and gently boiled in a copper for the space of an hour or two; it is then let into the receiver, and the hops are strained from it into the coolers. When cool, the barm or yeast is applied, and it is left to work or ferment, till it is fit to tun up.—Huckabacks are a sort of coarse diaper used for common table-cloths and napkins.

Prescot is 195 miles from London; here is a manufacture of cast plate-glass, made in the same manner as those of France. Liverpool, 203 miles from London, is the greatest sea-port and trading town on all the west coast of England, and is thought by many people superior to Bristol. Here are several manufactures of note; one for sail-cloth, two for preparing silk, one for china ware, several glass and pottery-houses, that make very fine ware; some salt works,

works, which refine great quantities of salt : here is also a number of brewers, who brew largely for exportation ; and several wet and dry docks, for building and re-fitting ships, that trade to all parts of the globe. Ormskirk is 207 ; Ecclestone, 206 ; Charley, 201 ; and Kirkham, abounding in all sorts of provisions, at a very low price, 223 miles from the metropolis. Preston is 214 miles from London, a very gay place, with frequent horse-races in the neighbourhood, and is greatly resorted to by people of small fortunes. Garstang is 225, and Poulton, 226 miles from London.

Lancaster is the county-town, 235 miles from the metropolis : here is a considerable foreign trade, and the town is noted for making cabinet ware. Cartmel, 259 miles from London, lies among some hill, called Cartmel fells ;  
this

this part of the county is an island, called Walney, separated from the main land, by a small arm of the sea, and generally denoted by the name of Fourness: the towns in it, besides Cartmel, are Ulverston, 268; Dalton, 273; and Hawkshead, 274 miles from London. Clithero is on the east side of the county, 214 miles from the capital. Burnley is 208; Coln, 214; Blackburn, 203; and Haslington, 196 miles from London.

In this county are mines of copper, lead, iron of antimony, black lead and lapis calimmaris; also quarries of stone for building. In some places the lands bear very good hemp; and the pastures are so rich, that the cows and oxen are of a very extraordinary size, and their horns are wider and bigger than those of any other county in England. In some parts of the county a bituminous earth  
is

is found which smells like oil of amber, and an oil is extracted from it, that in most of its valuable qualities is little inferior to it. The country people cut this kind of bitumen into pieces, and burn it instead of candles.

The principal rivers are the Mersey, the Ribble, the Wire, the Lon, and the Irk. This last is a very small river, but remarkable for eels, so fat, that few can eat them, thought to proceed from their feeding on the grease and oil extracted from the woollen cloth milled on this river, as there are several mills for that purpose. From Rochdale, we enter

## YORKSHIRE.

THIS is the largest county in England, and is divided into ridings: the North Riding, East Riding, and the  
West



West Riding. We enter the county by the West Riding, and the first town we come to is Hallifax, 200 miles from London, one of the famous cloathing towns, and the inhabitants of even the neighbourhood, are so employed in the cloth manufactures, that they scarce sow more corn than will keep their poultry.



I promised you, that when we came to this county, I should give you a circumstantial account of this manufacture, which is the great source of national wealth: my reason for not doing it before was, that as this county is the great mart for that manufacture, I thought you the more likely to remember the towns noted for it, when you had the description connected as it were with the idea of those places, which are renowned on that account.

When

When the sheep are shorn, persons are employed in winding up the fleeces of wool into bundles, which are packed and sold by weight: those bundles are called pockets; they contain usually twenty-five hundred weight of wool; the best is that of Lincolnshire: to use it to the best advantage, it is scoured, and soaked to dissolve the grease; when it is dry, and has no smell but the natural one of the sheep, it is said to be duly scoured, and is then beat with rods upon hurdles of wood, or on cords, to be cleansed of the dust and grosser filth: the more it is thus beat and cleaned, the softer it becomes, and the better for spinning. After beating it is well picked, to free it from the rest of the filth that had escaped the rods, and is then oiled and carded on large iron cards placed flopewise. Oil of olive is esteemed the best for this purpose, though rape oil is often used.

The

The wool intended for the woof is much more oiled than that for the warp. When it is properly done, it is given to the spinners, who first card it on their knees, with small fine cards, and then spin it on the wheel: they make the thread of the warp one third smaller than that of the woof, and much more twisted.

The thread, thus spun, is reeled and made into skains; that designed for the woof is wound on little tubes, pieces of paper, or rushes, so disposed that they may be easily put into the shuttle. That for the warp is wound on a kind of large wooden bobbin, to dispose it for warping. When warped, it is stiffened with size; and when dry, given to the weaver, who mounts it on the loom; the warp, thus mounted, the weavers, who are two at each loom, one on each side, tread alternately on the treadle, first on  
the

the right step, and then on the left; this raises and lowers the threads of the warp equally; between them they throw transversely the shuttle from the one to the other; every time it is thrown, and a thread of the woof inserted within the warp, they strike it conjointly with the same frame, wherein is fastened the comb or reed, between the teeth of which the threads of the warp are passed, repeating the stroke as often as is necessary.

The weavers having continued their work, till the whole warp is filled with the woof, the cloth is finished, and is then taken off the loom, by unrolling it from the beam, whereon it had been rolled, in proportion as it was wove, and is given to be cleansed of the knots, ends of threads, straws, and other filth, which is done with iron nippers. In this condition it is carried to the fullery  
to



to be scoured with a kind of potters clay, well steeped in water, and put along with the cloth in the trough, wherein it is fulled, the cloth being again cleared from the earth, is returned to the former hands, to have the lesser filths, small straws, &c. taken off as before; then it is returned to the fuller, to be beat and fulled with hot water, wherein a suitable quantity of soap has been dissolved; after fulling, it is taken to be smoothed, or pulled by the lifts lengthwise, to take out the wrinkles, creases, &c. the smoothing is repeated every two hours, till the fulling is finished, and the cloth brought to its proper breadth. After this it is washed in clear water, to purge it of the soap, and given wet to the carders, to raise the hair or knap on the right side, with thistle or weed; after this preparation, the cloth-workers take the cloth and give it its first cut, or shearing; then the  
carders

carders resume it, and after wetting, give it as many more courses with the teazle, as the quality of the stuff requires, always observing to begin against the grain of the hair, and to end with it; as also, to begin with a smoother thistle, proceeding still with one sharper and sharper as far as the sixth degree. After these operations, the cloth, being dried, is returned to the cloth workers, who shear it a second time, and return it to the carders, who repeat their operation as before, till the knap is well ranged on the surface of the cloth, from one end of the piece to the other. The cloth thus wove, scoured, knapped, and shorn, is sent to the dyer; when dyed, it is washed in fair water, and the worker takes it again, wet as it is, lays the knap with a brush on the table, and hangs it on the tenters, where it is stretched both in length and breadth, sufficiently to smooth it, set it square, and

and bring it to its proper dimensions, without straining it too much, observing to brush it afresh, the way of the knap, while a little moist on the tenters. When quite dry, the cloth is taken off the tenters, and brushed again on the table, to finish the laying of the knap: after it is folded, and laid cold under a press, to make it perfectly smooth and even, and give it a gloss: lastly, the cloth being taken out of the press, and the papers for glossing removed, it is in a condition for sale or use.

As to the manufactures of mixed cloths, or others, where the wool is first dyed, and then mixed, spun, and wove of the colours intended, the process, except what relates to the colour, is mostly the same as what I have just described to you. You see what a number of hands a piece of cloth must go through before it is fit for sale.

This

This must give you an idea of what importance this manufacture is to the nation, when so many thousand people are supported by it.

Bradford has manufactures of cloth ; the distance from London is 201 miles. Leeds, 194 miles from the metropolis, is one of the largest and most flourishing towns in the county, and has been long noted for its woolen manufactures. Its market for cloth, held every Tuesday morning, is the most curious thing of the kind in Europe, and the most orderly, as there is not the least noise nor confusion to be heard ; but the whole business of buying and selling is done at the first word, and that in a whisper, not to be heard by a by-stander. The merchants of York and Hull, as well as those of the town, ship off the cloth that is bought here for Holland, Hamburgh, and the north. The cloth-

L

hall



hall is much admired, and is a very commodious, handsome building. Aberford is 185; Cawood, 186; Tadcaster, 187; and Knaresborough, 200 miles from London: here is a medicinal spring, and a famous dropping well; some liquorice grows about the town. Aldborough is 206, and Borrowbridge 204 miles from London: the only trade of the town is in hard ware that is made there. Rippon, 209 miles from London, is the most northerly town of the West Riding and a staple town for wool: the best spurs in England are made there. Ripley, 205; Shipton, 222; Settle, 237; Gisborn, 220; and Otley, 206 miles from London. Those towns do not contain any thing worthy of notice, in any branch of trade. Weatherby is a trading town, 192 miles from the metropolis. Selby, from its situation on the Humber, is a place of considerable trade, 182 miles from London. About the town

town of Sherburn, 181 miles from London, are a great many cherry orchards. Pontefract is 175 miles from the metropolis; round the town there are a great deal of lime stones and Skirrets. Snaith is a place of good trade, 174 miles from London. Wakefield has some large woolen manufactures; the distance from London is 185 miles. Hathersfield is 192, and Barnsley, 177 miles. Here is a considerable manufacture in steel, wire, and iron ware. Pennitton is 162 miles, and Doncaster 160 miles from London. Doncaster is a very pretty town, with frequent horse-races in the neighbourhood; the manufactures are knit waistcoats, petticoats, gloves, and Stockings. Bawtree has a considerable trade in lead and iron, mill and grind-stones; it is 152 miles from London. Tickhill is 155, and Rotherham 162 miles. Here is a large iron foundry, and mills for rolling iron into sheet, and making plates for  
L 2                      tinning.

tinning. Sheffield is the most noted town in England, after Birmingham, for making hard ware, and particularly what relates to the cutlery branch, which consists in knives, razors, scissors, lancets, blades, &c. each of these articles are made by different workmen; and tis thought that 40,000 men are employed in making only those things. A great deal of work is done in the plating branch, and also in lead works. Many grindstones here, are turned by a set of wheels, all of which receive their motion from a water wheel, increasing in velocity from the first movement to the last, and turn round with such swiftness that not the least motion can be perceived. This town is not only famous for those things, but has likewise a silk mill, which employs several hundred of the inhabitants; so that, I suppose, the town does not contain less than 50,000 people: it is 160 miles from London.

London. Here are, also, lead works. Thorn is 167 miles from London.

The city of York is a county by itself; it divides the West Riding from the East, and is a metropolitan see, (that is an arch-bishopric,) and may be stiled London in miniature, as every diversion is to be had in the winter the same as in the metropolis; and a great many of the county nobility, who do not go every year to London, often spend part of the winter there. In the neighbourhood are horse-races, and in the town is a manufacture of cotton goods, which is brought to great perfection. Distance from London, 200 miles.

The most capital town in the East Riding is Hull, or, as it is also called, Kingston upon Hull. Its ships export most of the goods of the manufacturing



towns, especially to the northern countries and the Baltic. A great many ships belong to this port ; and in the town is a large manufacture of fail-cloth : it is 173 miles from London. Howden is 180 ; Heydon, 182 ; Patrington, 191 ; and Beverley, 181 miles from the metropolis. The principal manufactures of Beverley are tanned leather, malt, and bone lace. Wighton is 192 ; Pocklington, 196 ; Great Driffield, 195 ; Hornsey, 188 ; Frodingham, 195 ; Kilham, 200 ; Bridlington, 208 ; and Hunmanby, 209 miles from London. These are the towns of the East Riding ; they contain nothing worth a particular description : those on the coast are mostly inhabited by fishermen.

On entering the North Riding, we find on the coast, Scarborough, a place of great note for its mineral waters,  
and

and one of the best harbours in the kingdom: it is a place of great trade, and has a great number of ships, many of which are employed in carrying coals and salmon from Newcastle to London, from whence it is 204 miles distant. Here is a herring fishery, and from the middle of August till November great quantities of herrings are caught. On the coast, farther north, is Whitby, 245 miles from London, where the best and strongest vessels in England for the coal trade are built. The coast trade in time of peace is very great; it consists in fish, of which a great quantity is caught and cured. At this place they trade, also, in butter, hams, tallow, &c. A great many allum mines are near this town, which is also a great article of trade.

*Louisa*—I have often heard talk of allum, but have no certain idea of what

it is, nor to what uses it is applied, as I do not think I have ever seen any. I do not ask for an account of it, as I often experience, it is enough for me to express my ignorance on any subject, to obtain every information necessary for me to have.

*Aunt*—I believe the chief use of alum is in medicine, as, mixed with other ingredients, it is of service in various disorders. In colouring and dying, it binds the colours, and gives them a brightness, which without it they would not possess. Allum is made from a whitish or bluish stone, called Irish slate, burnt till it becomes white, and then put into a pit and steeped in water eight or ten hours; after this, it is conveyed to the allum-house into cisterns, and from thence into the pans, where it boils about twenty-four hours; then a quantity of the lees of  
kelp

kelp is added, and when all the dregs are settled at the bottom, it is conveyed into coolers: after standing four days and nights, till quite cool, the allum begins to crystalize on the sides of the vessel; it is then scraped off, washed, and thrown in a bin to let the water drain off; after this, it is thrown into a pan, called the rocking-pan, and melted; then conveyed by troughs into tuns, where it stands about ten days, till perfectly condensed; the tuns are then staved, the allum taken out, chipped, and carried to the store-house to be kept for sale.

Pickering is 224 miles from London. Kirkby Moorside is at the same distance; New Malton, 215; Easingwold, 211; Cockwold, 216; Thirsk, 220; and Helmsley, is at the same distance as Thirsk from London. Stockley is 240, miles, and Yarum is at the same

L 5

distance



distance from the metropolis. This town carries on a good trade with London in lead, corn, and butter. Gifborough is 248 miles from London: near the town are mines of iron and allum; the inhabitants are noted for their neatness and civility. Northallerton is 223; Masfham, 220; and Middleham, 229 miles from London. Middleham is a place of note, on account of several woolen manufactures; and in the neighbourhood are horse races. Ask-rig is 242, and Richmond, 250 miles from the metropolis: here are several manufactures of yarn stockings, woolen knit caps for seamen, &c. and in the neighbourhood are annual races.

The principal rivers of this county are the Hull, the Drevent, the Ouse, the Swale, the Ure, the Nidd, the Wharf, the Are, the Caldor, the Don, the Tees, and the Ribble.

The

The mountains contain mines of copper, lead, allum, stone, jet, marble, and coal, but none are wrought except those of lead, allum, and coals. From Richmond there is a road into

### DURHAM.

BARNARD Castle is in the bishopric of Durham, 246 miles from London, and has some trade in stockings and bridles. Stainthorp is 237 miles from the metropolis. Darlington is the most considerable place in all the North of England, for the linen manufactures, particularly that sort called huckabacks, for table-linen: they also make some very fine cloth; and it is almost incredible, the quantities of linen bleached near the town, as a great deal is sent from Scotland, on account that the water of the river Skern is reckoned superior for that purpose to

any other : the inhabitants have also a considerable trade in dressing leather ; they have a curious machine for spinning linen yarn, and also a water machine, for grinding optical glasses : the distance from London is 240 miles. Stockton, 249 miles from the metropolis, has a large manufacture of fail-cloth, and carries on a considerable trade with London in lead, butter, and bacon. Hartlepool's trade is its fishery : the ships from Newcastle, when the weather is bad, put into this harbour : 252 miles from London. Sunderland's chief wealth is derived from its coal mines, which are here in great plenty, and from whence there is a great demand, as they are so remarkable for burning slow, that they are said to make three fires : the town is 270 miles from London. Shields is noted for its salt-works ; as there are on the spot above 200 pans for boiling the sea-water into salt

salt which are said to require 100,000 chaldrons of coals every year. This salt is sent to London and other places on the river Thames.

Durham is the greatest bishopric in England, the bishop being a prince in his diocese. The cathedral church is superb; the town is almost surrounded by the river Were, 257 miles from London: it possesses a manufacture of shalloons, tammies, and calamancoes; and round the town grows great quantities of the best mustard. Bishop Auckland is 251; Walsingham, 260; and Stanhope, 265 miles from London.

All this part of the county abounds with lead and coal mines; and the mountains contain mines of iron, and quarries of marble.—The rivers of this county are sixteen in number, the  
chief



chief of which are the Tees and the Were.

### WESTMORELAND.

WE enter this county at Lune forest, and the first town we come to is Brough, 261 miles from London. At Kerby Steven, 262 miles from the metropolis, is a manufacture of yarn stockings. Orton is 272; Shap, 273; and Appleby, the county-town, 269 miles from London. Ambleside, at the same distance, has a considerable manufacture of cloth. Kendall is the largest town in the county, and has several considerable manufactures, and a great trade in those of woollen cloth: there is one of knit stockings; and the making of what is called Kendall cottons, is a very great article of trade, manufactured of Westmoreland wool, which is very coarse, and are chiefly  
made

made for exportation or sailors jackets. Another principal branch of manufacture is linsey-woolsey, made chiefly for home consumption. Here are a great many tanners and curriers: a great many of the inhabitants are employed, also, in preparing silk. They receive the waste silk from London, boil it in soap, comb, spin, dress it, and then send it back to the metropolis, 258 miles from this town.

I explained to you in what consisted the business of a tanner, but have said nothing of that of a currier, which consists in softening the leather after it comes from the tanner, with oil, tallow, &c. to make the upper leather and quarters for shoes, covering of saddles, coaches, and other things, intended to keep out water. The first thing done (as the skins, after coming from the tanner's yard, have many fleshy fibres

fibres on them) is to soak them sometime in common water, out of which they are taken and stretched on a wooden horse, and all the superfluous flesh scraped off with a knife: they are then soaked again, and put wet on a hurdle, and men trample on them till they begin to grow pliant and soft; train oil is then imbibed into them, and the skins are spread on large tables, and fastened at the end with a pummel: (a thick piece of wood, the under side of which is full of furrows, crossing each other) this folds squares, and is moved forward and backward several times. The teeth of this instrument break the too great stiffness of the skin: this is what is properly called currying. After the skins are curried there may be occasion to colour them; and the colours are black, white, red, yellow, and green. Other colours are given by skinner, who differ from carriers in this, that they apply

ply their colours on the flesh side ; the others on the hair side. Those skins that are to be made white, are rubbed with lumps of chalk or white lead, and afterwards with pumice stone. When the skins are intended to be made black, after being oiled and dried, a puff is passed over them, dipt in water, impregnated with iron ; and after that, it is wetted again with a water, prepared with foot, vinegar, and gum arabic. These different dyes gradually turn the skin black ; and this operation is repeated till it is of a shining colour. The grain and wrinkles, which contribute to the suppleness of calf and cow leather, are made by the reiterated folds given to the skins in every direction, and by the care taken to scrape off all hard parts on the coloured side.

We shall now continue our journey  
to Kirby Lonsdale, 253 miles from  
London,



London, where there is a manufacture of woollen cloth ; and to the south-west of the county is Burton, 244 miles from the metropolis.

This county abounds with lakes, the chief of which are Winander-mere and Ulles-water.—The principal rivers are the Eden, the Loder, the Can, and the Lon. On the borders of Ulles's lake we enter

### CUMBERLAND,

AND the first town we come to is Kefwick, 287 miles from London ; in its neighbourhood is a mine of the finest black lead in the world, found in heavy lumps, some being hard, gritty, and of small value ; others soft and of a fine texture. The lumps found in the rubbish seldom exceed half a pound in weight ; but those found in the mine  
are

are said to be six or seven pounds. The pits resemble quarries, or gravel-pits; the hill in which it is found is a dirty, brittle clay, interspersed with springs, and in some places shivers of the rock. It grows in great plenty from the bottom of the mountain, to the height of above three hundred yards; but the upper part is in a manner entirely barren. Kewick is chiefly inhabited by miners. As you learn to draw, I need not tell you black lead is made into pencils. Ravenglass is 284 miles from London; the inhabitants have a great trade in the pilchard fishery. Egremont is situated near a very high mountain, called Dent Hill, and not far from Copland Forest, 299; and Whitehaven, 305 miles from the metropolis. Whitehaven derives its name from a great rock of hard, white stone, standing to the west of the harbour; near it is a prodigious coal-mine, that runs a considerable way under the  
sea

sea. At Workington there is a considerable salmon fishery; it is at the distance of 307 miles from London. At Cockermouth, 299 miles from London, are several woollen manufactures, of the coarse kind, such as shalloons; also, a manufacture of hats, and one of worsted stockings. The hats are mostly for exportation, as they are sent first to Glasgow, and then to the West-Indies. Treby is 299 miles from London. Holm, 310; and Wigton, situated among the moors, 305 miles from the metropolis. A new town has been lately built on the coast, for the convenience of the coal-trade, called Maryport. Carlisle is 301 miles from London, the county-town, and a bishopric, has a considerable manufacture of printed linens and checks; a great many whips and fish-hooks are made there also. Bowness is only noted for being the place where the Pict's wall begins.

Brampton

Brampton is 311 miles from London. Alston Moor is a place of little note, as well as Kirk-Oswald, 292 miles from the metropolis. Penrith, 284 miles from London, is a town of great trade, particularly in tanned leather.

This county is full of lakes and mountains.—The chief rivers are the Derwent, the Eden, the Leven, the Esk, and the Wammil. From Alston Moor we enter

## NORTHUMBERLAND,

THE most northern, and last county in England. The first town we come to, proceeding northward, is Haltwessel, 318 miles from London; and from thence we come to Beltingham, 296; and then to Hexham, 288 miles from London. The Pict's wall crosses the county at this town, from west to east.

Here



Here are manufactures of tanned leather, shoes, and gloves. At Newcastle-upon-Tyne, the county-town, 272 miles from London, are several glass-houses, and a considerable manufacture of hard ware. They consume an amazing quantity of coals, and the fires make a smoke that appears like clouds over the hills at the distance of several miles. About the town are several ship yards, where vessels for the coal trade are built in great perfection. A great many grindstones are sold here; but the fish, sold in London, under the name of Newcastle salmon, is not caught in the Tyne, but in the Tweed. Near the harbour is Tinmouth Castle: this town is the centre of the great collieries, which have, for centuries past, supplied London with coals. Stannington is 282, and Morpeth, after Smithfield, the most considerable market in England for cattle, is 287 miles from London. Roth-bury

bury is 302; Alnwick, 305; Wooller, 317; and Berwick, which parts England from Scotland, 335 miles from the metropolis. Here is a considerable manufacture of stockings, a great salmon fishery, and some corn and eggs are sent to London by sea. Learmouth is a handsome town, 329; Ellesdon, 301; and Bellingham, 300 miles from London.

This county is full of coal mines, and the coals are called sea-coal, because they are brought by sea to most of the maritime parts of Great Britain. There are also mines of lead and copper; and the mountains produce great plenty of timber.

On the coast are several islands, and Holy Island is the largest. Fairn Isle is a cluster of small islands, several of which are only rocks that appear above  
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the surface of the sea. Coquet Isle is the most southerly one on the coast of this county; the principal rivers of which are the Tweed, the North and South Tyne, the Coquet, and the Reed.

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Now we have finished our tour thro' England, are you disposed to make a survey of Wales? I shall leave it entirely to your choice; so tell me which will be most agreeable to you, to go on with Wales at present, or take a view of the London manufactures, without going through the Welch counties.

*Maria*—Since you are so good as to put it to my option, I beg we may go through Wales, before we come to the description of London; as I should not make myself easy, were it my own fault I did not become acquainted with every thing

thing that may be a source of information to me; and, indeed, I find the more I learn the happier I am, as I can think on a number of things that I had no idea of before, and find an entertainment in my own thoughts, which hinders me from ever thinking the time hangs heavy on my hands.

*Aunt.*—I am very glad to find you of that way of thinking: yet, it is but just we should have Louisa's opinion on the subject; so, my dear, tell me your thoughts freely, and without constraint, as you know I delight in consulting your happiness or pleasure, as far as is consistent, in every thing.

*Louisa.*—You are very good, Madam. I beg my sister's wish may be complied with; for, I am very sensible, though I may not take so much delight in listening to every thing as she does, it

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is necessary for me to learn as much as I can at present, that it may be of use to me hereafter; and, I promise you, I will do my endeavour to remember all that I can; therefore, you may depend on my attention.

*Aunt.*—How charmed I am, my dear Louisa, to find you in that disposition; we shall go then through Wales, but I don't know how I shall get you out to sea, as I think I should begin by the northern counties; you know that they are twelve in all, six north, and six south; in the northern counties the Isle of Anglesea counts for one, and I think we must begin with it.

WALES.

# WALES.

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## ISLE OF ANGLESEA.

**W**E shall suppose, then, that we cross at Abermanai ferry, the most southern point of the island; the first town we meet with is Newborough, 258 miles from London. This town is in a decaying state, owing to the heaps of sand thrown up about it by the seas, and subsists chiefly by a manufacture of mats, and ropes made of the sea-reed grass. Going west, we come to Aberfraw, formerly the residence of the princes of North Wales, who were sometimes called the kings of Aberfraw, 236 miles from the metropolis. In the neighbourhood of Llan-

wyoan is a quarry of white marble, which takes a good polish, and may be used by statuaries. Holyhead is situated in a peninsula, at the western extremity of the island, opposite to Dublin, and 275 miles from London. The commodities of this town are butter, cheese, great quantities of corn, bacon, wild fowl, oysters, lobsters, crabs, razor-fish, herrings, cod, whittings, pollock, coal-fish, sea tench, turbot, soles, flounders, skate, and thornback. The plant called by the English tang, grows on the sea rocks, near the harbour; of which the inhabitants make a great advantage, by burning it to a fixed salt, called kelp, used in the manufacturing of glass, and in the allum-works. Samphire also grows upon the rocks, and coast. In the neighbourhood of the town is a large vein of white fullers earth, and another of yellow. At Dulas, on the eastern side of the island, is  
a great

a great plenty of a reddish ochreous earth, like Spanish brown: veins of lead ore have likewise been discovered. On all the coast, fern-ashes are made, and sold to the soap-boilers, and glass and smelting-houses. At Cemlym, near this place, is a famous quarry of the stone, called asbestos, a species of beautiful marble, out of which is got the salamander's wool, a substance resembling flax, and has been woven into a kind of cloth, that will not burn in a common fire; the ancients have frequently mentioned it in their natural histories. A yellow, sulphureous copper ore is found here also; and, at Llandadrig, about three miles to the east, there is a great vein of strong ochre, of various colours, as red, yellow, and blue; and an exceeding fine white clay, proper for painters, potters, &c. At Red Wharf, a bay and harbour, five miles from Beaumaris, there



is a lime-stone trade carried on to all the neighbouring countries. Amongst this lime-stone is plenty of grey marble, that will bear a fine polish. Near to Red Wharf are remarkable quarries of mill-stones, of the grit kind. Beaumaris is the capital of the whole island, 242 miles from London, where is a fine copper mine; the inhabitants have corn, butter, and cheese in plenty; and all the coast abounds with oysters, mussels, cockles, and other kinds of fish. At Penmon, and in its neighbourhood, are quarries of mill-stones, of the grit kind, great quantities of which are exported. Not far from Beaumaris is Priestholm Island, which lies almost close to the shore: the inhabitants make themselves a livelihood by taking the birds of passage, which frequent the island; those that are most sought after, are the puffins, which they pickle and sell at a very high price; and numbers of them  
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are conveyed to London, where they are esteemed a great delicacy. I will give you an account of this bird, and the manner in which it is taken.

The legs of the puffin are very small, and placed so far behind as to disqualify it from standing, except quite erect; this circumstance makes its rise from the ground very difficult, and it meets with many falls before it gets on wing; but, when that is effected, few birds fly longer or stronger. They come to this island in such multitudes, that they may be compared to swarms of bees for their number; their annual arrival is about the 5th or 10th of April, and they quit the place almost to a bird, but return again twice or thrice before they settle to burrow, which they do the first week in May. Some dislodge the rabbits from their holes, and keep possession of them till their departure from

the island. Those that form their own burrow, are at the time so intent on the work, as to suffer themselves to be taken by the hand. This task falls chiefly to the share of the males. The first young are hatched the beginning of July, when the old ones show vast affection towards them, and seem totally insensible to danger in the breeding season. If a parent is taken at that time, and suspended by the wings, it will, in a sort of despair, treat itself most cruelly, by biting every part it can reach; and the moment it is free, will never offer to escape, but instantly resort to its unfledged young. This affection ceases at the stated time of migration, which is about the 11th of August, when they leave such young as cannot fly to the mercy of the peregrine falcon, who watches the mouths of the houses for the appearance of those little deserted puffins, that, forced by hunger,

hunger, are compelled to leave their burrows. They lay only one egg, which differs much in form; some have one end very acute, others have both very obtuse, but all are white. The flesh of the puffin is excessively rank, as it feeds on sea-weeds and fish, especially sprats; but, when pickled, and preserved with spices, it is admired by those who love high eating. They are either dug out, or drawn from their burrows by a hooked stick. They bite extremely hard, and keep such fast hold on whatever they fasten, as not to be easily disengaged. Their noise, when taken, is very disagreeable, being like the efforts of a dumb person to speak.—These birds are also common in Ireland, and on the island Sherries, three leagues north-west of Holyhead. Crossing the ferry, we enter



## CAERNARVONSHIRE,

AND come to Bangor, a city, 246 miles from London ; and then to Caernarvon, 252 miles ; the chief commodities of the town are corn and slate. Pullhely is 244, and Nevin, 250 miles from the metropolis. Bardefey is a small island, near the extremity of the south-west promontory of this peninsula. Crickieth is a borough town, 237 miles, and Aberconway is 230 miles from London.

The chief rivers of this county are the Conway, and the Seiont. From Aberconway, we enter

## DENBIGHSHIRE.

AND come to Llanroost, 228 miles from London, and from thence to  
Wrexham,

Wrexham, 186 miles. Here is a large manufacture of flannels, great quantities of which are sent to London, and the poor about the neighbourhood are employed in spinning the wool for it. Ruthin is 204 miles from London, and Denbeigh, 210. Here is a large manufacture of leather gloves and shoes; and a considerable trade is carried on in the tanning business.

The principal rivers of this county are the Clwyd, the Elwy, the Dee, and the Conway. Crossing the river Clwyd, we enter

### FLINTSHIRE.

SAINT Asaph is a bishopric, 209 miles from London; Caerwis, 204; Holywell, 200; and Flint, the county-town, 194.

This county yields wheat, great quantities of barley, oats, and rye: butter and cheese are also made in great plenty, as well as honey. Here are a great many coal mines, and the hills yield mill-stones and lead ore in great abundance.

The rivers of this county are the Dee, the Wheeler, the Alen, the Clwyd, and the Sevon.

### MONTGOMERYSHIRE.

LLANWELLING is 179 miles from London. Montgomery is the county-town, 161, and Welch-pool is 169 miles from the metropolis. This town carries on a considerable trade in Bristol flannels, of which there is a large manufacture. Lanydles is 158 miles from London, and Machynleth, 198.

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The principal rivers of the county are the Severn, the Tanant, and the Turch. To the west of this county is

### MERIONETHSHIRE.

BALA is 195 miles from London: this town has a great trade in knit woolen stockings. Harleigh 222, and Dolgelly, 205. Here is a considerable manufacture of Welch cottons. Dinafmouthy is a small obscure town, 196 miles from the metropolis.

The rivers of the county are the Duffy, the Avon, the Drwryth, and the Dee.

### CARDIGANSHIRE.

ABERRYSTWITH is 204 miles from London, and is a place of great trade



trade in lead ore, wood, timber, herrings, and other fish, and oak bark. Llanarth, 215 miles from London, is a very small town. At Cardigan, the county-town, a considerable trade is carried on in corn and lead; also salmon, which is caught in the river Tyvi: it is 226 miles from London. Llanbedor is 199, and Tregarron, 203 miles from the metropolis.

The principal rivers of the county are the Tyvi, the Reydal, and the Ystwyth, which falls into the sea near Aberystwith. To the east of this county is

### RADNORSHIRE.

RIADERGOWY is 174 miles from London. Radnor, the county-town, is 157, and Knigton, 155. Here is a good trade. At Presteign, 150 miles from

from London, the inhabitants make a great quantity of malt.

The principal rivers of this county are the Wye, the Temb, and the Ithon. To the south-west of this county is

### BRECKNOCKSHIRE.

AT Brecknock, the county-town, 163 miles from London, is a woollen manufacture; and not far from the town is a lake, called Brecknock Mere, about two miles square, in which are such an amazing quantity of perch, tench, and eels, that it is generally said to be two thirds water and one third fish. The method the inhabitants have of taking those fish is curious; they use a small boat, called a coracle, almost an oval in form, and made of split sally twigs, interwoven like baskets; the bottom is round, and the part next the  
water

water covered with a raw horse-hide. This boat is about five feet in length and three in breadth, and is so light, that the fisherman carries it to and from the lake on his back. Each of these coracles holds a man, who, when he is seated, rows himself swiftly with one hand, and with the other manages his net, rod, or other fishing tackle. Beulah has a manufacture of stockings: the distance from London is 171 miles. Crickhowel is 149, and Hay, 131. This town has great fairs for sheep, cattle, and horses.

The principal rivers of this county are the Uik, the Wye, and the Irvon. To the west of this county is

### CARMARTHANSHIRE.

THE first town we come to is Llanidlovry, 180 miles from London.  
Llandilovaur,

Llandilovaur, 196, is the largest parish in the county, extending thirteen miles in length and eight in breadth. Newcastle is 219, and Carmarthan, the county-town, 208 miles from the metropolis; it is the genteelest town in Wales, and a place of considerable trade. Kidwelly, noted for its fishery, is at the distance of 222 miles from London. Langharn is 193; Llangadoc, 186; and Llanelthy, 216 miles from the metropolis. Here is a considerable trade carried on in coals.

The principal rivers of the county are the Towy, the Cothy, and the Tave.

## PEMBROKESHIRE

IS furrounded by the sea on the north, west, and south. The most nothern town



town in this county is Newport, a poor place, 235 miles from London. In the bay is a quarry of slates which supplies all the coast; and near it is a vein of allum earth. At Ffigard, the inhabitants carry on a good trade in the herring fishery: it is 242; Killgarring has a great salmon fishery, at the distance of 229; and St. Davids is a city, but a place of no trade, 273 miles from London. Haverford-west, 257 miles from the capital, is a trading town, and one of the politeſt in Wales. Milford Haven is the beſt harbour in Great Britain; veins of copper ore have been obſerved in the ſea cliffs, and there are great quantities of lime-ſtone about the haven. Pembroke is the county-town, and a place of conſiderable trade, 235 miles from London. Tenby has a commodious quay and a good road for ſhipping, a large herring fiſhery, and carries on a conſiderable

considerable trade with Ireland, particularly in coals: the distance from the metropolis is 249 miles.

The rivers of this county are the Teivy, the Clethy, and the Dougledye. The most southern and last county in Wales is

### GLAMORGANSHIRE.

PENRICE is 218 miles from London; and Swanzey, 205. In the neighbourhood of this town are several large coal pits, by means of which, a considerable coal trade is carried on by the inhabitants. Neath is 200 miles from London; in its neighbourhood are iron forges, smelting works for copper, and many coal mines. Aberaven is 196; Bridgend, 178; Llantriffent, 166; and Cowbridge is 178 miles from

from London. Cardiff is the county-town, 165; and Landaff is a bishop's see, 168 miles from the metropolis.

The principal rivers of this county are the Rhymny, the Taff, the Ogmore, the Avon, the Neath, and the Tavey.

LONDON.

## LONDON.

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Now, my dears, having gone through England and Wales, we shall take a view of the manufactures of the metropolis. It contains some of every kind, in which it participates with the country towns; the only difference is, that, in general, the finer and most costly articles are made in London: some manufactures are peculiar to it, such as optical and mathematical instruments. A great variety of works in jewels, gold, and silver, are made in London, and different sorts of clock work, which could not conveniently be disposed of at any other place; but  
one



one of the principal manufactures is that of the silk weavers, established in Spital Fields by French refugees. The porter brewery is also chiefly carried on in London. The paper-hanging manufactures are in a very flourishing condition, as well as those of paper machee. Most of the works done in the carving business, are performed in London; where are also large manufactures of soap, and others of starch.

In this metropolis the arts are in a most flourishing condition; but one of the most useful is that of printing, which is brought to such perfection in England as to be surpassed by no other nation, and equalled by few.

*Maria*—You name all these employments in a manner that makes me apprehensive, you do not intend to enter into any detail concerning them. Now  
I should

I should be very glad if you would give us an account of the different arts and manufactures you have mentioned, especially that of printing ; I know so little about it, that I shall be much obliged to you, to give me a description of the whole proceeding.

*Aunt*—As you seem so anxious about it, we shall begin with it, and leave what I had to say on other things till your curiosity is satisfied in this.

There are three different kinds of printing ; the first is called letter-press printing, which is that used in printing books ; the second is copper-plate printing, for engravings ; and the third is from blocks, on which are cut the representation of birds, flowers, &c. for printing calicoes, linens, &c. As the first of these is what you wish to be made acquainted with, you will observe,

serve, the workmen employed therein are of two descriptions; compositors, who set and dispose the letters into words lines, pages, &c. according to the manuscripts given them; and pressmen, who ink the letters, and take off the impression. The letters are a composition of lead, hardened with iron, and cast in a furnace. It is the compositor's business to distribute each kind by itself, into the divisions of two wooden frames, an upper and lower one; and each of those, which are called cases, is divided into little cells, or boxes. The instrument used to set the letters in, is called a composing-stick, into which the compositor places such letters as are required to form the words, according to the manuscript, &c. he may have before him, which he gathers from those little cells, or boxes, with a degree of expedition scarce to be imagined: he continues to fill

fill and empty his stick till a complete page is formed, and then ties it up with packthread, and proceeds to the next, till the number of pages comprised in a sheet be completed ; he then carries them to the imposing stone, to be fastened together in an iron frame, called a chase. When the pages are thus confined, at an equal distance from each other, they are called a form, and taken to the press for a proof sheet to be printed, which is given to the reader to examine, and correct whatever errors might have occurred in composing, which he rectifies by the manuscript, and returns it to the compositor to alter in the form.

When the forms are carefully read, and corrected by the compositor, the business of the pressman is to work them off; for which purpose four things are required; paper, ink, balls, and a  
N press.



press. To fit the paper for use, it must be wetted and pressed under a weight for ten or twelve hours, to take the impression. The ink is made of oil and lamp black, and applied to the letter with balls, the stocks of which are made in the shape of funnels, stuffed with wool, and covered with part of a sheep-skin, prepared for that purpose; one of these the pressman takes in each hand, and, applying one of them to the ink, works them together to distribute it equally on the face of the balls, and then blackens the forms as they are placed on the press, by beating thereon with the balls: a sheet of paper is then laid on the tympan, wherein is a soft blanket, which folds down over the paper upon the face of the letter, and passes directly under the press, when the paper, being wet, easily takes the impression. By this means one side of the paper is printed; after which the form  
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for the other side is laid on the press and worked off in the same manner.

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The second kind of printing is that used for copper plates, to take off prints. The method of copper-plate printing is this ; ink is applied to the plate with a linen rubber, while it lays to heat on a grate over a charcoal fire ; when sufficiently inked, it is wiped with a rag, then with the palm of the hand, with whiting applied to it. The address of the workman consists in wiping the plate clean, without taking the ink from the engraving ; the plate is then laid on the press, and a sheet of moistened paper over it, and two or three folds of flannel over that, then the press is turned, and the plate with its furniture passes between the rollers, and presses the paper into the strokes of the engraving, whereby it imbibes

the ink, and the print is then taken out and laid to dry.

The third kind of printing is the method used by calico printers : flowers, or whatever pattern is wanted, are cut out in relievo on wood, the various colours are laid on these blocks, and then placed on the linen that is to be printed, when the impressi<sup>o</sup>n is made by striking on the blocks.

The hanging paper, for papering rooms, is done in the same manner, as to the printing part of it, as the calico printing, that is from blocks, daubed over with paint, and then pressed on the paper.

Paper machee is an invention that owes its celebrity to the desire of shining at a small expence : it is made of a kind of paste-board, cast wet into different.

ferent ornaments. When this is dry, a size is put over it, and it is then gilt in the same manner as carved work, and answers the same purpose, only it is not so durable nor valuable. It is made into looking-glass and picture frames, by covering a plain wooden frame with it.

As to the silk manufactures, I have given you a description of them elsewhere, as well as most others; and, looking over the list of the different manufactures of London, I do not see that I have omitted an account of any, except those of soap and starch, which are mostly made on the Surry-side of London.

*Louisa*—Since you have been so good as to give us an account of every thing else, do not leave off before you have made us acquainted with those; for,



though they are things so commonly used, I cannot say that it ever occurred to me to think how they were made.

*Aunt*—Starch is made of the finest flour, soaked in water, and made into a kind of loaf, which is then dried in an oven, or in the sun, and afterwards cut into little pieces and sold.

There are several kinds of soap; the soft, the hard, and the ball soap.—The soft soap is either green or white; the principal ingredients in the green kind are lees, drawn from pot ashes, and lime, boiled up with tallow and oil. A sort of soft white soap is made from lees of lime ashes, boiled up twice with tallow.

Hard soap is made of ashes and tallow, boiled together till they are sufficiently incorporated to become one  
thick

consistence ; it is then taken out of the boiler with ladles, and poured into chests : before it is cool, some blue is poured over it, which penetrates thro' the mass. After the soap is quite cold it is taken out of the chests, cut into lengths, and laid up to dry.

Ball soap is made of lees, from ashes, and tallow ; the lees are put into the copper, and boiled till the watery part is quite gone, and nothing remains but a sort of nitrous matter, to which tallow is put, and stirred about in the copper, while boiling, for half an hour ; in that time the soap is compleated, and put into tubs or baskets, with sheets in them, that the soap should not stick to the sides ; and while it is soft, it is made into balls. It takes near twenty-four hours to boil away the watery parts of the lees ; and, indeed, the

process of boiling for all sorts of soap is at present very slow.

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I have now given my dear girls a view of the inferior sources of the trade of their country, which will enable them to form a just idea of its importance, as a trading nation, and convince them how much it is indebted to the industry of its inhabitants for the share it has acquired in the world, as the mistress of trade and commerce. It is thought that a fifth of the subjects of Great Britain are employed on the sea, in conveying to different countries the produce of her manufactures, as well as those of her different possessions.

*Maria.*—You mentioned, before we took a view of the country, that whatever England did not produce was  
supplied

supplied from abroad. I should be very glad, if not intruding too much on your goodness, if you would give us an account of the different things that are exported from abroad, with the names of the places from whence they come; and, also, what manufactures they receive from us in return.

*Aunt*—What you ask, my dear, has been the subject of many volumes; neither do I think myself capable of giving you a very minute account; but I will try to satisfy you as far as I am able, and with the greater pleasure, as I shall be sure of your attention, it being connected with geography, of which you are so fond. We shall then begin with the northern part of Europe, and proceed regularly over the world.—To Denmark England exports broad cloth, clocks, cabinet and lock-work; and receives in return fir and other



other timber, for ship building ; train oil, tar, pitch, and furs.—To Sweden is exported much the same manufactures as to Denmark ; and the imports are masts for ships, and other timber ; tar, pitch, bark of trees, pot ashes, hemp, peltry, and furs.—To Russia, Great Britain exports woolen cloth, lead, clocks, and cabinet work ; and imports linen, furs of various kinds, red leather, pitch and tar, wax, honey, isinglass, linseed oil, pot ash, feathers, musk, rhubarb, spermaceti, caviare, castors, and other drugs.—To Holland, England sends all kinds of woolen goods, hides, corn, coals, East-India and Turkey merchandize, tobacco, tar, sugar, rice, and ginger ; and imports in return fine linen, lace, cambrics, thread, tapes, madder, boards, drugs, whalebone, train oil, and toys.—England sends to Flanders, serges, flannels, tin, lead, sugars, and tobacco ; and  
receives

receives in return laces, cambrics, and other articles of luxury.—To Germany Great Britain sends cloths and stuffs, tin, pewter, sugar, tobacco, and East-India merchandize; and imports from thence, linen, thread, goat skins, tinned plate, timber for all uses, and wines.—To Poland, and Lithuania, by way of Dantzic, England sends sugars, in great quantities; also tobacco of every species, and to a great amount; woolen goods is also a very capital branch of trade with that country; as is, likewise, hard ware, malt liquors, pimento, ginger, pepper, rice, coffee, leather, lead, tin, salt, sea-coal, and large quantities of cod and herrings.—To France England sends tobacco, lead, tin, flannels, horns, and sometimes corn; and imports wines, brandies, linen, cambrics, lace, velvets, and brocades.—To Spain is exported all kinds of woollen goods, leather, tin, lead, iron, brass manufactures,

nufactures, fish, corn, haberdashery, and linen ; and receives in return wines, oils, dried fruits, oranges, lemons, olives, wool, indigo, cochineal, colours, and dying drugs.—England sends to Portugal almost the same commodities as to Spain, and receives in return great quantities of wines, oils, dried and moist fruits, and dying drugs.—To Italy, England exports woolen goods of various kinds, peltry, leather, lead, tin, fish, and East-India goods ; and brings back in return, raw and thrown silk, wines, oil, soap, olives, pomegranates, oranges, lemons, dried fruits, colours, and anchovies, with some other articles of luxury.—England sends to Turkey woolen cloths, tin, lead, iron, hardware, iron utensils, clocks, watches, verdigrease, spices, cochineal, logwood ; and brings back from thence, raw silks, carpets, skins, dying drugs, cotton, fruits, coffee, and medicinal drugs.—With Africa,

rica, England's trade consists in fundry sorts of the coarse woolen and linen manufactures, which are sent to the coast of Guinea, also, iron, pewter, brass, hard ware, lead, shot, swords, knives, fire arms, gun powder, and glass manufactures; and receives in return gold dust, gum, dying and other drugs, red wood, Guinea grains, and ivory.—The foreign trade in Asia is with Arabia, Persia, and China, in English manufactures of woolen goods, lead, iron, and brass; the import in return from thence are muslins, calicoes, cottons, raw and wrought silk, chintz, teas, porcelain, gold dust, coffee, saltpetre, and other drugs.

You are not ignorant that England possesses many extensive possessions abroad in the East and West Indies and America, from whence she receives those various articles of trade that are  
not



not the produce of Great Britain, but of her different possessions, and which are re-exported to different countries.

—To the East Indies are exported from England all kinds of woollen manufactures, all sorts of hard ware, lead, bullion, and quicksilver; the imports are gold, diamonds, raw silk, drugs, tea, pepper, arrack, porcelain, or China ware, saltpetre, wrought silk, muslins, calicoes, cottons, and all their woven manufactures.—To the West Indies, England exports oinaburgs, a coarse kind of linen, with which the slaves are clothed; linen of all sorts, with broad cloth and kerfies for the planters, silk and stuffs, red caps, shoes and stockings, hats and gloves, millinery, laces for linen, wool and silk wigs, strong beer, pale beer, pickles, candles, butter and cheese, iron ware, as saws, files, axes, hatchets, chisels, adzes, hoes, mattocks, gouges, planes, augers nails, lead, powder,

der and shot, brass and copper wares, toys, coals, pantiles, cabinet wares, snuffs, and in general whatever is raised or manufactured in Great Britain; and all sorts of India goods: the imports from thence to England are sugars, rum, cotton, logwood, cocoa, coffee, pimento, ginger, indigo, materials for dyers, mahogany and manchineel planks, drugs, and preserves.—To Canada, in North America, England sends coarse cloths, linen, and wrought iron, also some of the produce of the East and West India colonies; and receives in return peltry and furs.—the Indian trade is in rum, tobacco, a sort of duffil blankets, guns, powder, balls, flints, kettles, hatchets, toys, and trinkets of all kinds.—The cod fishery on the banks of Newfoundland is an object of trade of the greatest advantage to England, and employs a number of ships.

I have

I have only given you an idea of the various articles of export and import, that you may be able to judge of the extent of the commerce of your country, and of the number of individuals who are enabled, by those means, not only to acquire the necessaries of life, but also its conveniences ; and who, by their united industry, have raised their country to great wealth and renown.



